



# STIC EIC 2100

## Search Request Form

46  
105425

Today's Date:

10-06-2003

What date would you like to use to limit the search?

Priority Date: 09/02/99 Other:

Name Anh Ly

AU 2172 Examiner # 77831

Room # 4A30 Phone 308-4527

Serial # 09/285,639

Format for Search Results (Circle One):

PAPER  DISK  EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other

Is this a "Fast & Focused" Search Request? (Circle One)  YES  NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

- DISSimilariSh structure (a data structure containing information that is not present in another data structure): source dataset
- the source dataset is based on structure associated with the source dataset and the target dataset.
- computing distance metric between the at least one target collection and the source collection.

10-06-03 PAG8249FM

10-06-03 PC2:46 IN

STIC Searcher Teresa Estebold Phone 308-7795  
Date picked up 10/9/03 2:16pm Date Completed

Set	Items	Description
S1	334	AU=(HELLERSTEIN, J? OR HELLERSTEIN J?)
S2	13	S1 AND NAVIGAT?
File	2:INSPEC 1969-2003/Sep W4	(c) 2003 Institution of Electrical Engineers
File	6:NTIS 1964-2003/Oct W1	(c) 2003 NTIS, Intl Cpyrght All Rights Res
File	8:Ei Compendex(R) 1970-2003/Sep W4	(c) 2003 Elsevier Eng. Info. Inc.
File	34:SciSearch(R) Cited Ref Sci 1990-2003/Sep W4	(c) 2003 Inst for Sci Info
File	35:Dissertation Abs Online 1861-2003/Sep	(c) 2003 ProQuest Info&Learning
File	65:Inside Conferences 1993-2003/Oct W1	(c) 2003 BLDSC all rts. reserv.
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File	99:Wilson Appl. Sci & Tech Abs 1983-2003/Aug	(c) 2003 The HW Wilson Co.
File	103:Energy SciTec 1974-2003/Sep B2	(c) 2003 Contains copyrighted material
File	144:Pascal 1973-2003/Sep W4	(c) 2003 INIST/CNRS
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File	233:Internet & Personal Comp. Abs. 1981-2003/Jul	(c) 2003, EBSCO Pub.
File	239:Mathsci 1940-2003/Nov	(c) 2003 American Mathematical Society
File	275:Gale Group Computer DB(TM) 1983-2003/Oct 07	(c) 2003 The Gale Group
File	434:SciSearch(R) Cited Ref Sci 1974-1989/Dec	(c) 1998 Inst for Sci Info
File	647:CMP Computer Fulltext 1988-2003/Sep W2	(c) 2003 CMP Media, LLC
File	674:Computer News Fulltext 1989-2003/Sep W4	(c) 2003 IDG Communications
File	696:DIALOG Telecom. Newsletters 1995-2003/Oct 07	(c) 2003 The Dialog Corp.

Publisher: ACM,  
Publication Date: June 1998 Country of Publication: USA  
CODEN: SRECD8 ISSN: 0163-5808  
SICI: 0163-5808(199806)27:2L.567:CCON;1-V  
Material Identity Number: A660-98003  
Conference Title: 1998 ACM SIGMOD International Conference on Management  
of Data

Conference Date: 1-4 June 1998 Conference Location: Seattle, WA, USA  
Language: English Document Type: Conference Paper (PA); Journal Paper  
(JP)

Treatment: Practical (P)

Abstract: The CONTROL project at UC Berkeley has developed technologies to provide online behavior for data intensive applications. Using new query processing algorithms, these technologies continuously improve estimates and confidence statistics. In addition, they react to user feedback, thereby giving the user control over the behavior of long running operations. The article displays the modifications to a database system and the resulting impact on aggregation queries, data visualization, and GUI widgets. We then compare this interactive behavior to batch processing alternatives. (3 Refs)

Subfile: C

Descriptors: batch processing (computers); data visualisation; database management systems; graphical user interfaces; interactive systems; query processing

Identifiers: continuous output and navigation technology with refinement on-line; CONTROL project; online behavior; data intensive applications; query processing algorithms; confidence statistics; user feedback; long running operations; aggregation queries; data visualization; GUI widgets; interactive behavior; batch processing alternatives

Class Codes: C6160 (Database management systems (DBMS)); C4250 (Database theory); C6130B (Graphics techniques); C6180G (Graphical user interfaces); C6150J (Operating systems)

Copyright 1998, IEE

Title: CONTROL: continuous output and navigation technology with refinement on-line

Author(s): Avnur, R.; Hellerstein, J.M. ; Lo, B.; Olston, C.; Raman, B.; Raman, V.; Roth, T.; Wylie, K.

Identifiers: continuous output and navigation technology with refinement on-line...

2/5,K/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5927627 INSPEC Abstract Number: B9807-6210C-009, C9807-5620L-011

Title: Using multidimensional databases for problem determination and planning of a networked application

Author(s): Hellerstein, J.L. ; TummalaPalli, V.R.

Author Affiliation: IBM Res. Div., Yorktown Heights, NY, USA

Conference Title: Proceedings of the IEEE Third International Workshop on Systems Management (Cat. No.98EX161) p.117-26

Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA

Publication Date: 1998 Country of Publication: USA viii+151 pp.

ISBN: 0 8186 8476 3 Material Identity Number: XX98-01187

U.S. Copyright Clearance Center Code: 0 8186 8476 3/98/\$10.00

Conference Title: Proceedings of the IEEE Third International Workshop on Systems Management

Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Distributed Process.; IBM T.J. Watson Res. Center; Univ. Western Ontario

Conference Date: 22-24 April 1998 Conference Location: Newport, RI, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Systems management accounts for 60% to 80% of the cost of LAN-connected personal computers. This paper describes a decision support application to reduce systems management costs in the area of problem

determination and capacity planning for the Legato Backup System as it is used at Columbia University. Central to the system management tasks addressed is the use of data **navigation**, especially drill-down, roll-up, and pivot. These operations are provided by multidimensional databases (MDDB). As such, our application includes an MDDB layer. We discuss the application's architecture, the design of the MDDB schema, and outline the operation of the MDDB engine. (16 Refs)

Subfile: B C

Descriptors: back-up procedures; capacity management (computers); computer network management; database machines; distributed databases; local area networks; planning; query processing; telecommunication computing

Identifiers: multidimensional databases; problem determination; networked application planning; systems management; LAN-connected personal computers; decision support application; systems management costs; capacity planning; Legato Backup System; Columbia University; data **navigation**; drill-down; roll-up; pivot; MDDB layer; MDDB schema; MDDB engine

Class Codes: B6210C (Network management); B6210L (Computer communications); C5620L (Local area networks); C0310D (Computer installation management); C7410F (Communications computing); C6160B (Distributed databases)

Copyright 1998, IEEE

Author(s): Hellerstein, J.L. ; Tummala, V.R.

...Abstract: is used at Columbia University. Central to the system management tasks addressed is the use of data **navigation**, especially drill-down, roll-up, and pivot. These operations are provided by multidimensional databases (MDDB). As such...

...Identifiers: data **navigation** ;

2/5,K/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5362752 INSPEC Abstract Number: C9610-5470-019

Title: A flexible and scalable approach to navigating **measurement data** in performance management applications

Author(s): Berry, R.F.; Hellerstein, J.L.

Author Affiliation: IBM Personal Syst. Products, Austin, TX, USA

Conference Title: Proceedings of the IEEE Second International Workshop on Systems Management (Cat. No.96TB100032) p.92-103

Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA

Publication Date: 1996 Country of Publication: USA viii+160 pp.

ISBN: 0 8186 7442 3 Material Identity Number: XX96-01301

U.S. Copyright Clearance Center Code: 0 8186 7442 3/96/\$5.00

Conference Title: Proceedings of IEEE International Workshop on System Management

Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Distributed Process

Conference Date: 19-21 June 1996 Conference Location: Toronto, Ont., Canada

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Managing the performance of large distributed systems requires flexible and scalable approaches to automating measurement **navigation**. Unfortunately, existing approaches achieve scalability by severely limiting flexibility. This paper considers an approach that infers **navigation**s from a dimensional representation of the measurement name space. Doing so provides flexible **navigation** and results in dramatic improvements in scalability, as quantified by analytic models that are developed in this paper. Indeed, our models indicate that it is inherently unscalable to automate **navigation** by requiring the specification of relationships between measurement names, as is done in existing approaches. In contrast, the dimensional approach is optimal for the class of data sources considered in our models. Exploiting the dimensional approach requires addressing issues such as: irregularities in the measurement name space; mappings between the name space used for measurement collection and storage and the dimensional structured name space; and the efficient storage of

measurement names. Solutions are proposed for all of these issues. (20 Refs)

Subfile: C

Descriptors: distributed processing; measurement; naming services; performance evaluation; storage management; system monitoring

Identifiers: flexible scalable approach; automatic measurement data navigation ; performance management; large distributed systems; dimensional representation; measurement name space irregularities; analytic models; measurement name relationships specification; data sources; name space mappings; measurement data collection; measurement data storage; dimensional structured name space; efficient measurement name storage

Class Codes: C5470 (Performance evaluation and testing); C6150N (Distributed systems software); C6150G (Diagnostic, testing, debugging and evaluating systems)

Copyright 1996, IEE

**Title: A flexible and scalable approach to navigating measurement data in performance management applications**

Author(s): Berry, R.F.; Hellerstein, J.L.

Abstract: Managing the performance of large distributed systems requires flexible and scalable approaches to automating measurement navigation . Unfortunately, existing approaches achieve scalability by severely limiting flexibility. This paper considers an approach that infers navigations from a dimensional representation of the measurement name space. Doing so provides flexible navigation and results in dramatic improvements in scalability, as quantified by analytic models that are developed in this paper. Indeed, our models indicate that it is inherently unscalable to automate navigation by requiring the specification of relationships between measurement names, as is done in existing approaches. In contrast

...  
...Identifiers: automatic measurement data navigation ;

2/5,K/5 (Item 1 from file: 8)

DIALOG(R)File 8:EI Compendex(R)  
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

05343268 E.I. No: EIP99084758611

**Title: Interactive data analysis: The Control project**

Author: Hellerstein, Joseph M.; Avnur, Ron; Chou, Andy; Hidber, Christian; Olston, Chris; Raman, Vijayshankar; Roth, Tali; Haas, Peter J.

Corporate Source: Univ of California, Berkeley, Berkeley, CA, USA

Source: Computer v 32 n 8 1999. p 51-59

Publication Year: 1999

CODEN: CPTRB4 ISSN: 0018-9162

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 9910W1

Abstract: The Continuous Output and Navigation Technology with Refinement Online (Control) project at Berkeley, with collaborators at IBM, Informix, and elsewhere, explores ways to improve human-computer interaction during data analysis. The Control project's goal is to develop interactive, intuitive techniques for analyzing massive data sets. The project focuses on systems that iteratively refine answers to queries and give users online control of processing, thereby tightening the data analysis process loop. 9 Refs.

Descriptors: \*Data reduction; Data structures; Data acquisition; Data mining; Online systems; Interactive computer systems; Distributed database systems; Query languages; Human computer interaction; User interfaces

Identifiers: Interactive data analysis

Classification Codes:

723.2 (Data Processing); 722.4 (Digital Computers & Systems); 723.3 (Database Systems); 722.2 (Computer Peripheral Equipment); 723.1 (Computer Programming)

723 (Computer Software); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING)

Author: Hellerstein, Joseph M. ; Avnur, Ron; Chou, Andy; Hidber, Christian; Olston, Chris; Raman, Vijayshankar; Roth, Tali; Haas, Peter J.

Abstract: The Continuous Output and Navigation Technology with Refinement Online (Control) project at Berkeley, with collaborators at IBM, Informix, and elsewhere, explores ways...

2/5,K/6 (Item 2 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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05115711 E.I. No: EIP98094372359

Title: CONTROL: Continuous Output and Navigation Technology with Refinement On-Line

Author: Avnur, Ron; Hellerstein, Joseph M. ; Lo, Bruce; Olston, Chris; Raman, Bhaskaran; Raman, Vijayshankar; Roth, Tali; Wylie, Kirk

Corporate Source: Univ of California at Berkeley, Berkeley, CA, USA

Conference Title: Proceedings of the ACM SIGMOD International Conference on Management of Data

Conference Location: Seattle, WA, USA Conference Date: 19980601-19980604

E.I. Conference No.: 48939

Source: SIGMOD Record (ACM Special Interest Group on Management of Data) v 27 n 2 June 1998. Croatian Soc Chem Eng, Zagreb, Croatia. p 567-569

Publication Year: 1998

CODEN: SRECD8 ISSN: 0163-5808

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9811W1

Abstract: The CONTROL project at U.C. Berkeley has developed technologies to provide online behavior for data-intensive applications. Using new query processing algorithms, these technologies continuously improve estimates and confidence statistics. In addition, they react to user feedback, thereby giving the user control over the behavior of long-running operations. This demonstration displays the modifications to a database system and the resulting impact on aggregation queries, data visualization, and GUI widgets. We then compare this interactive behavior to batch-processing alternatives. (Author abstract) 3 Refs.

Descriptors: \*Distributed database systems; Online systems; Computer systems programming; Query languages; Algorithms; Graphical user interfaces; Data reduction; Visualization; Interactive computer systems

Identifiers: Query processing algorithms; Aggregation query; Data visualization

Classification Codes:

723.3 (Database Systems); 722.4 (Digital Computers & Systems); 723.1 (Computer Programming); 722.2 (Computer Peripheral Equipment); 723.2 (Data Processing)

723 (Computer Software); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING)

Title: CONTROL: Continuous Output and Navigation Technology with Refinement On-Line

Author: Avnur, Ron; Hellerstein, Joseph M. ; Lo, Bruce; Olston, Chris; Raman, Bhaskaran; Raman, Vijayshankar; Roth, Tali; Wylie, Kirk

2/5,K/7 (Item 3 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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04483856 E.I. No: EIP96083297058

Title: Flexible and scalable approach to navigating measurement data in performance management applications

Author: Berry, Robert F.; Hellerstein, Joseph L.

Corporate Source: IBM Personal Systems Products, Austin, TX, USA

Conference Title: Proceedings of the 1996 2nd IEEE International Workshop on Systems Management

Conference Location: Toronto, Can Conference Date: 19960619-19960621  
Sponsor: IEEE  
E.I. Conference No.: 45186  
Source: Proceedings of the IEEE International Workshop on Systems Management 1996. IEEE, Los Alamitos, CA, USA, 96TB100032. p 92-103

Publication Year: 1996

CODEN: 002416

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9610W4

Abstract: Managing the performance of large, distributed systems requires flexible and scalable approaches to automating measurement **navigation**. Unfortunately, existing approaches achieve scalability by severely limiting flexibility. Considered here is an approach that infers **navigations** from a dimensional representation of the measurement name space. Doing so provides flexible **navigation** and results in dramatic improvements in scalability, as quantified by analytic models herein developed. Indeed, our models indicate that it is inherently unscalable to automate **navigation** by requiring the specification of relationships between measurement names, as is done in existing approaches. In contrast, the dimensional approach is optimal for the class of data sources considered in our models. Exploiting the dimensional approach requires addressing issues such as: irregularities in the measurement name space; mappings between the name space used for measurement collection and storage and the dimensional structured name space; and efficient storage of measurement names. Solutions are proposed for all of the foregoing. (Author abstract) 20 Refs.

Descriptors: \*Distributed computer systems; Information management; Data communication systems; Mathematical models; Measurement theory; Automation; Data storage equipment

Identifiers: Measurement **navigation** ; Measurement name space; Data sources

Classification Codes:

722.4 (Digital Computers & Systems); 723.2 (Data Processing); 716.1 (Information & Communication Theory); 921.6 (Numerical Methods); 722.1 (Data Storage, Equipment & Techniques)  
722 (Computer Hardware); 723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 921 (Applied Mathematics)  
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 92 (ENGINEERING MATHEMATICS)

**Title: Flexible and scalable approach to navigating measurement data in performance management applications**

Author: Berry, Robert F.; Hellerstein, Joseph L.

Abstract: Managing the performance of large, distributed systems requires flexible and scalable approaches to automating measurement **navigation**. Unfortunately, existing approaches achieve scalability by severely limiting flexibility. Considered here is an approach that infers **navigations** from a dimensional representation of the measurement name space. Doing so provides flexible **navigation** and results in dramatic improvements in scalability, as quantified by analytic models herein developed. Indeed, our models indicate that it is inherently unscalable to automate **navigation** by requiring the specification of relationships between measurement names, as is done in existing approaches. In contrast...

Identifiers: Measurement **navigation** ; Measurement name space; Data sources

2/5,K/8 (Item 4 from file: 8)

DIALOG(R)File 8:Bi Compendex(R)

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03919317 E.I. No: EIP94081363575

**Title: Comparison of techniques for diagnosing performance problems in information systems**

Author: Hellerstein, Joseph L.

Corporate Source: IBM Thomas J. Watson Research Cent, Yorktown Heights, NY, USA

Conference Title: Proceedings of the 1994 ACM Sigmetrics on Measurement and Modeling of Computer Systems

Conference Location: Nashville, TN, USA Conference Date: 19940516-19940520

E.I. Conference No.: 20690

Source: Performance Evaluation Review v 22 n 1 May 1994. p 278-279

Publication Year: 1994

CODEN: PEREDN ISSN: 0163-5999 ISBN: 0-89791-659-X

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 9409W5

Abstract: Diagnosing performance problems is typically done using a structured (although heuristic) approach that exploits known relationships between measurement variables, represented by a measurement **navigation** graph (MNG). Since the results of a diagnosis depend critically on the arc weights, the focus of this work is on the evaluation of techniques that compute are weights. Detailed explanation on the different techniques used for diagnosing performance problems in computer systems is included in this paper. 1 Ref.

Descriptors: \*Information retrieval systems; Computer aided diagnosis; Performance; Response time (computer systems); Computer systems; Correlation methods; Heuristic programming

Identifiers: Diagnosing performance problems; Information systems; Measurement **navigation** graph; Mainframe computer system; Central processing unit; Threshold analysis; Bottleneck analysis; Child variable; Parent variable; Correlation analysis

Classification Codes:

903.3 (Information Retrieval & Use); 723.5 (Computer Applications); 722.4 (Digital Computers & Systems); 922.2 (Mathematical Statistics); 723.1 (Computer Programming)

903 (Information Science); 723 (Computer Software); 722 (Computer Hardware); 922 (Statistical Methods)

90 (GENERAL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

Author: **Hellerstein, Joseph L.**

...Abstract: using a structured (although heuristic) approach that exploits known relationships between measurement variables, represented by a measurement **navigation** graph (MNG). Since the results of a diagnosis depend critically on the arc weights, the focus of...

Identifiers: Diagnosing performance problems; Information systems; Measurement **navigation** graph; Mainframe computer system; Central processing unit; Threshold analysis; Bottleneck analysis; Child variable; Parent variable; Correlation analysis

2/5,K/9 (Item 1 from file: 65)

DIALOG(R)File 65:Inside Conferences

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02352122 INSIDE CONFERENCE ITEM ID: CN024612627

CONTROL: Continuous Output and Navigation Technology with Refinement  
On-Line

Avnur, R.; **Hellerstein, J. M.**; Lo, B.; Olston, C.

CONFERENCE: Management of data SIGMOD'98-International conference  
SIGMOD REPORT, 1998; VOL 27; NUMBER 2 P: 567-569

ACM Press, 1998

ISSN: 0163-5808 ISBN: 0897919955

LANGUAGE: English DOCUMENT TYPE: Conference Papers

CONFERENCE EDITOR(S): Haas, L.; Tiwary, A.

CONFERENCE SPONSOR: ACM Special Interest Group on Management of Data

CONFERENCE LOCATION: Seattle: WA

CONFERENCE DATE: Jun 1998 (199806) (199806)

BRITISH LIBRARY ITEM LOCATION: 8275.570000

DESCRIPTORS: data; management; ACM; SIGMOD

**CONTROL: Continuous Output and Navigation Technology with Refinement  
On-Line**  
Avnur, R.; Hellerstein, J. M. ; Lo, B.; Olston, C.

**2/5,K/10 (Item 2 from file: 65)**  
DIALOG(R)File 65:Inside Conferences  
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01510707 INSIDE CONFERENCE ITEM ID: CN014997142  
**A Flexible and Scalable Approach to Navigating Measurement Data in  
Performance Management Applications**  
Berry, R. F.; Hellerstein, J. L.  
CONFERENCE: Systems management-International workshop; 2nd  
IEEE INTERNATIONAL WORKSHOP ON SYSTEMS MANAGEMENT, 1996; 2nd P: 92-103  
IEEE Computer Society Press, 1996  
ISBN: 0818674423; 081867444X  
LANGUAGE: English DOCUMENT TYPE: Conference Papers  
CONFERENCE SPONSOR: IEEE Computer Society Technical Committee on  
Distributed Processing  
CONFERENCE LOCATION: Toronto, Canada  
CONFERENCE DATE: Jun 1996 (19960) (19960)

BRITISH LIBRARY ITEM LOCATION: 4362.973450

NOTE:

IEEE Order Plan Cat no 96TB100032

DESCRIPTORS: systems management; IEEE; distributed processing

**A Flexible and Scalable Approach to Navigating Measurement Data in  
Performance Management Applications**  
Berry, R. F.; Hellerstein, J. L.

**2/5,K/11 (Item 1 from file: 99)**  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2003 The HW Wilson Co. All rts. reserv.

1924105 H.W. WILSON RECORD NUMBER: BAST99051298  
**Interactive data analysis: the Control project**  
Hellerstein, Joseph M ; Avnur, Ron; Chou, Andy  
Computer v. 32 no8 (Aug. 1999) p. 51-9  
DOCUMENT TYPE: Feature Article ISSN: 0018-9162 LANGUAGE: English  
RECORD STATUS: Corrected or revised record

ABSTRACT: Data analysis is fundamentally an iterative process in which you issue a query, receive a response, formulate the next query based on the response, and repeat. You usually don't issue a single, perfectly chosen query and get the information you want from a database; indeed, the purpose of data analysis is to extract unknown information, and in most situations, there is no one perfect query. People naturally start by asking broad, big-picture questions and then continually refine their questions based on feedback and domain knowledge. In the Control (Continuous Output and Navigation Technology with Refinement Online) project at the University of California, Berkeley, the authors are working with collaborators at IBM, Informix, and elsewhere to explore ways to improve human-computer interaction during data analysis. The Control project's goal is to develop interactive, intuitive techniques for analyzing massive data sets.  
Copyright 1999, IEEE.

DESCRIPTORS: Database design; User interfaces (Computers)--Design; Data mining;

Hellerstein, Joseph M ;

...ABSTRACT: then continually refine their questions based on feedback and domain knowledge. In the Control (Continuous Output and Navigation Technology with Refinement Online) project at the University of California, Berkeley, the authors are working with collaborators...

2/5,K/12 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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14363931 PASCAL No.: 00-0015948

Eventbrowser : A flexible tool for scalable analysis of event data  
Active technologies for network and service management : Zurich, 11-13

October 1999

SHENG MA; HELLERSTEIN J L

STADLER Rolf, ed; STILLER Burkhard, ed

IBM T.J. Watson Research Center, Hawthorne, NY 10532, United States

DSOM'99 : IFIP/IEEE international workshop on distributed systems :  
operations and management (Zurich CHE) 1999-10-11

Journal: Lecture notes in computer science, 1999, 1700 285-296

ISBN: 3-540-66598-6 ISSN: 0302-9743 Availability: INIST-16343;

354000080037830200

No. of Refs.: 7 ref.

Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)

Country of Publication: Germany

Language: English

Event management is fundamental to network and systems management. To date, this discipline has focused on reporting alerts in real time. This paper describes a tool, EventBrowser, intended for ad hoc analysis of historical logs, especially for problem determination and validating the benefits of configuration changes. EventBrowser addresses: (a) irregularities in the structure of event messages, (b) problems with visualizing patterns in large volumes of categorical data, and (c) difficulties with providing multiple views at different levels of detail. In particular for item (c), EventBrowser provides summary statistics (e.g., by host name), relationships between events (e.g., via scatter plots), and full message details..We have applied EventBrowser to analyze data from a production network. Our visualizations reveal a number of abnormalities that are not detected readily by conventional tools.

English Descriptors: Computer system; Information system; Information organization; Information browsing; Information management; Information technology

French Descriptors: Systeme informatique; Systeme information; Organisation information; Navigation information; Gestion information; Technologie information

Classification Codes: 001D02B04; 001A01G02A; 205

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SHENG MA; HELLERSTEIN J L

French Descriptors: Systeme informatique; Systeme information; Organisation information; Navigation information; Gestion information; Technologie information

2/5,K/13 (Item 1 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB<sup>TM</sup>  
(c) 2003 The Gale Group. All rts. reserv.

02197692 SUPPLIER NUMBER: 20913381

Looking forward to interactive queries. (research at UC Berkeley on data visualization, query processing statistics and user interfaces)  
(includes related article on academic and industrial partnerships)  
(Technology Information) (Cover Story)

Hellerstein, Joseph M.

Database Programming & Design, v11, n8, p28(6)  
August, 1998

Set        Items        Description  
S1        32        AU='HELLERSTEIN J' OR AU='HELLERSTEIN J L' OR AU='HELLERSTEIN JOSEPH' OR AU='HELLERSTEIN JOSEPH L'  
File 347:JAPIO Oct 1976-2003/Jun(Updated 031006)  
      (c) 2003 JPO & JAPIO  
File 348:EUROPEAN PATENTS 1978-2003/Sep W04  
      (c) 2003 European Patent Office  
File 349:PCT FULLTEXT 1979-2002/UB=20031002,UT=20030925  
      (c) 2003 WIPO/Univentio  
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200364  
      (c) 2003 Thomson Derwent

1/5/1 (Item 1 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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01638273

OBJECT&minus; ORIENTED FRAMEWORK FOR GENERIC ADAPTIVE CONTROL  
CADRE D'APPLICATIONS ORIENTE OBJET POUR COMMANDE ADAPTATIVE GENERIQUE  
PATENT ASSIGNEE:

International Business Machines Corporation, (200120), New Orchard Road,  
Armonk, N.Y. 10504, (US), (Applicant designated States: all)

INVENTOR:

BIGUS, Joseph Phillip, 5113 Highgrove Lane NW, Rochester, MN 55901, (US)

HELLERSTEIN, Joseph, L., 41 Wolden Road, Ossining, NY 10562, (US)

PAREKH, Sujay, 4 Martine Avenue, 1003, White Plains, NY 10606, (US)

PILGRIM, Jeffrey, Robert, 1011 Canterbury Lane NW, Rochester, MN 55901,  
(US)

SCHLOSNAGLE, Donald, A., 2530 25th Avenue SE, Rochester, MN 55904, (US)

SQUILLANTE, Mark, S., 21 Scofield Road, Pound Ridge, NY 10576, (US)

THATHACHAR, Jayram, S., 272 Palm Valley Blvd., 204, San Jose, CA 95123,  
(US)

PATENT (CC, No, Kind, Date):

WO 2003065211 030807

APPLICATION (CC, No, Date): EP 2003704060 030129; WO 2003US2611 030129

PRIORITY (CC, No, Date): US 59665 020129

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;  
HU; IE; IT; LI; LU; MC; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO

INTERNATIONAL PATENT CLASS: G06F-009/45

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 031001 A1 International application. (Art. 158(1))

Application: 031001 A1 International application entering European  
phase

LANGUAGE (Publication, Procedural, Application): English; English; English

1/5/2 (Item 2 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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01504873

USING CONTINUOUS OPTIMIZATION FOR ORDERING CATEGORICAL DATA SETS IN A DATA

PROCESSING SYSTEM

ORGANISIERUNG VON KATEGORISCHEN DATENSATZEN MITTELS FORTGESETZTEM  
OPTIMIEREN IN EINEM DATENVERARBEITUNGSSYSTEM

UTILISATION D'UNE OPTIMISATION CONTINUE POUR ORDONNANCEMENT D'ENSEMBLES DE  
DONNEES CATEGORIELS DANS UN SYSTEME DE TRAITEMENT DE DONNEES

PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road,  
Armonk, NY 10504, (US), (Applicant designated States: all)

INVENTOR:

BEYGELZIMER, Alina, 206 University Park, Rochester, NY 14620, (US)

PERNG, Chang-Shing, 102 Babbit Road, Bedford Hills, NY 10507, (US)

MA, Sheng, 13 Justine Court, Briarcliff Manor, NY 10510, (US)

HELLERSTEIN, Joseph, 41 Wolden Road, Ossining, NY 10562, (US)

PATENT (CC, No, Kind, Date):

WO 2002075592 020926

APPLICATION (CC, No, Date): EP 2002708458 020311; WO 2002GB1117 020311

PRIORITY (CC, No, Date): US 812250 010319

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/30

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021120 A2 International application. (Art. 158(1))

Application: 021120 A2 International application entering European  
phase

LANGUAGE (Publication, Procedural, Application): English; English; English

1/5/3 (Item 3 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01497653

SYSTEM FOR EMBEDDING CORRELATED PERFORMANCE MEASUREMENTS  
SYSTEM ZUR EINBETTUNG KORRELIERTEN LEISTUNGSMESSUNGSDATEN  
SYSTEME PERMETTANT D'INCORPORER DES MESURES DE PERFORMANCE CORRELEES  
PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road,  
Armonk, NY 10504, (US), (Applicant designated States: all)

INVENTOR:

MILLS, Nathaniel, III, 16 Deer Hill Lane, Coventry, CT 06238, (US)  
KRUEGER, LeRoy, Jr., 3112 Royal Troon, Woodstock, GA 30189, (US)  
KRISHNAKUMAR, Srirama, Mandyam, 2 Montana Place, White Plains, NY 10607,  
(US)

SQUILLANTE, Mark, 21 Scofield Road, Pound Ridge, NY 10576, (US)  
HELLERSTEIN, Joseph, 41 Wolden Road, Ossining, NY 10562, (US)

PATENT (CC, No, Kind, Date):

WO 2002073412 020919

APPLICATION (CC, No, Date): EP 2002703745 020306; WO 2002GB1004 020306

PRIORITY (CC, No, Date): US 274761 P 010309; US 875722 010606

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-011/34

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021113 A2 International application. (Art. 158(1))

Application: 021113 A2 International application entering European  
phase

LANGUAGE (Publication, Procedural, Application): English; English; English

1/5/4 (Item 4 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01421299

APPARATUS AND METHOD FOR USE IN A COMPUTER HOSTING SERVICES ENVIRONMENT  
VORRICHTUNG UND VERFAHREN ZUR BENUTZUNG IN EINER COMPUTER  
BEHERBERGUNGSDIENSTEN UMGEBUNG  
APPAREIL ET PROCEDE UTILISEES DANS UN ORDINATEUR HEBERGEANT UN  
ENVIRONNEMENT DE SERVICES  
PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road,  
Armonk, NY 10504, (US), (Applicant designated States: all)

INVENTOR:

DAN, Asit, 6 Heritage Drive, Pleasantville, NY 10570, (US)  
DIAS, Daniel, 3380 Sunny Court, Mohegan Lake, NY 10547, (US)  
HELLERSTEIN, Joseph, 41 Wolden Road, Ossining, NY 10562, (US)

PATENT (CC, No, Kind, Date):

WO 2002017065 020228

APPLICATION (CC, No, Date): EP 2001947644 010706; WO 2001GB3045 010706

PRIORITY (CC, No, Date): US 642526 000818

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04L-012/24

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 020424 A2 International application. (Art. 158(1))

Application: 020424 A2 International application entering European  
phase

Application: 030924 A2 International application. (Art. 158(1))

Appl Changed: 030924 A2 International application not entering European  
phase

Withdrawal: 030924 A2 Date application deemed withdrawn: 20030319  
LANGUAGE (Publication,Procedural,Application): English; English; English

1/5/5 (Item 5 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01270315

Systems and methods for ordering categorical attributes to better visualize  
multidimensional data  
System fur die Einrichtung der kategorischen Attribute zum besser  
Sichtbarmachen von mehrdimensionalen Daten  
Systeme et methode pour commander des attributs categoriques pour  
visualiser mieux des donnees multidimensionnelles

PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road,  
Armonk, NY 10504, (US), (Applicant designated States: all)

INVENTOR:

Hellerstein, Joseph L., IBM United Kingdom Ltd., I.P. Law, Hursley Park  
, Winchester, Hampshire SO21 2JN, (GB)

Ma, Sheng, IBM United Kingdom Ltd., I.P. Law, Hursley Park, Winchester,  
Hampshire SO21 2JN, (GB)

LEGAL REPRESENTATIVE:

Burt, Roger James, Dr. (52152), IBM United Kingdom Limited Intellectual  
Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 1094422 A2 010425 (Basic)

APPLICATION (CC, No, Date): EP 309231 001019;

PRIORITY (CC, No, Date): US 422708 991021

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06T-011/20

ABSTRACT EP 1094422 A2

A computer-based method of processing multidimensional data is disclosed which comprises the steps of: (i) obtaining categorical attributes associated with the multidimensional data; (ii) automatically ordering at least a portion of the categorical attributes associated with the multidimensional data wherein the automatic ordering step arranges the attributes to provide a substantially optimized visualization of the categorical attributes; and (iii) making results of the automatic ordering step available for use in accordance with a data visualization system.

ABSTRACT WORD COUNT: 77

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010425 A2 Published application without search report

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200117	529
SPEC A	(English)	200117	6694
Total word count - document A			7223
Total word count - document B			0
Total word count - documents A + B			7223

1/5/6 (Item 6 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00771967

Detecting performance problems in a computer system  
Erkennung von Leistungsproblemen in einem Computersystem

Detection de problemes de performance dans un systeme d'ordinateur

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road,  
Armonk, N.Y. 10504, (US), (Proprietor designated states: all)

INVENTOR:

Berry, Robert Francis, 8107 Cardin Drive, Austin, Texas 78759, (US)  
Hellerstein, Joseph, 41 Wolden Road, Ossining, New York 10562, (US)

LEGAL REPRESENTATIVE:

Ling, Christopher John (80401), IBM United Kingdom Limited, Intellectual  
Property Department, Hursley Park, Winchester, Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 723228 A1 960724 (Basic)

EP 723228 B1 010912

APPLICATION (CC, No, Date): EP 95308788 951205;

PRIORITY (CC, No, Date): US 376714 950123

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-011/32

CITED PATENTS (EP B): EP 529770 A; US 5067107 A

CITED REFERENCES (EP B):

IBM TECHNICAL DISCLOSURE BULLETIN, vol. 35, no. 2, 1 July 1992, pages  
92-94, XP000313231 "USER INTERFACE FOR PERFORMANCE MONITOR"

PATENT ABSTRACTS OF JAPAN vol. 016, no. 301 (P-1379), 3 July 1992 &  
JP-A-04 080838 (NEC CORP), 13 March 1992,

IBM TECHNICAL DISCLOSURE BULLETIN, vol. 35, no. 4B, 1 September 1992,  
pages 32-34, XP000313843 "GAUGE METHODOLOGY FOR EVENT COMPLETION";

ABSTRACT EP 723228 A1

A method and apparatus is provided that measures performance in a computer system (100) having a windowed graphic display (202). The method and apparatus provides for a performance survey application (208) which allows for detecting whether performance of the computer system (100) has degraded. An indication (210) is provided on the display (202). Also provided on the display is a survey button that when clicked by the user generates a record indicating that perceived performance is poor. The status of the system is updated in response to user clicks. This in turn causes appropriate updates in the display. Finally, the record associated with the user's click is written to the appropriate memory location. In so doing, a system is provided that allows for continuous indication of the performance of the computer system. (see image in original document)

ABSTRACT WORD COUNT: 156

NOTE:

Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):

Grant: 010912 B1 Granted patent

Application: 960724 A1 Published application (A1with Search Report  
;A2without Search Report)

Oppn None: 020904 B1 No opposition filed: 20020613

Examination: 970122 A1 Date of filing of request for examination:  
961125

Examination: 991229 A1 Date of dispatch of the first examination  
report: 19991115

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS A	(English)	EPAB96	547
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CLAIMS B	(English)	200137	553
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CLAIMS B	(German)	200137	511
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CLAIMS B	(French)	200137	626
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SPEC A	(English)	EPAB96	2061
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SPEC B	(English)	200137	2183
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Total word count - document A		2608
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Total word count - document B		3873
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Total word count - documents A + B		6481
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01035172 \*\*Image available\*\*

**OBJECT- ORIENTED FRAMEWORK FOR GENERIC ADAPTIVE CONTROL**  
**CADRE D'APPLICATIONS ORIENTE OBJET POUR COMMANDE ADAPTATIVE GENERIQUE**

Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NY  
10504, US, US (Residence), US (Nationality)

Inventor(s):

BIGUS Joseph Phillip, 5113 Highgrove Lane NW, Rochester, MN 55901, US,  
HELLERSTEIN Joseph L, 41 Wolden Road, Ossining, NY 10562, US,  
PAREKH Sujay, 4 Martine Avenue, #1003, White Plains, NY 10606, US,  
PILGRIM Jeffrey Robert, 1011 Canterbury Lane NW, Rochester, MN 55901, US,

SCHLOSSNAGLE Donald A, 2530 25th Avenue SE, Rochester, MN 55904, US,  
SQUILLANTE Mark S, 21 Scofield Road, Pound Ridge, NY 10576, US,  
THATHACHAR Jayram S, 272 Palm Valley Blvd., #204, San Jose, CA 95123, US

Legal Representative:

ROTH Steven W (et al) (agent), IBM Corporation, Dept. 917, Building  
006-1, 3605 Highway 52 North, Rochester, MN 55901-7829, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200365211 A1 20030807 (WO 0365211)

Application: WO 2003US2611 20030129 (PCT/WO US0302611)

Priority Application: US 200259665 20020129

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO  
RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI  
SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-009/45

International Patent Class: G06F-015/18; G06F-017/60; G06F-017/60;  
G06F-019/00; H04J-001/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5140

English Abstract

A system and method are described for constructing and implementing generic software agents for automated tuning of computer systems and applications. The framework defines the modules and interfaces to allow agents to be created in a modular fashion. The specifics of the target system (260) are captured by adaptors (230) that provide a uniform interface to the target system (260). Data in the agent is managed by a metric manager (240), and controller modules implement the desired control algorithms. The modular structure and common interfaces allow for the construction of generic agents that are applicable to a wide variety of target systems, and can use a wide variety of control algorithms.

French Abstract

L'invention a trait a un systeme et a un procede permettant de construire et de mettre en oeuvre des agents logiciels generiques destines a adapter de facon automatisee des systemes et des applications informatiques. Le cadre d'applications definit les modules et les interfaces qui permettent de creer des agents d'une facon modulaire. Les specifiques du systeme cible (260) sont captures par des adaptateurs (230) qui fournissent une interface uniforme au systeme cible (260). Les donnees contenues dans l'agent sont gerees par un gestionnaire de mesures (240), et des modules controles mettent en oeuvre les algorithmes de commande souhaites. La structure modulaire et les interfaces communes permettent de construire

des agents generiques qui peuvent etre appliques a une grande variete de systemes cibles et faire appel a une grande variete d'algorithmes de commande.

Legal Status (Type, Date, Text)  
Publication 20030807 A1 With international search report.

1/5/8 (Item 2 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.

00941542 \*\*Image available\*\*  
USING CONTINUOUS OPTIMIZATION FOR ORDERING CATEGORICAL DATA SETS IN A DATA  
PROCESSING SYSTEM  
UTILISATION D'UNE OPTIMISATION CONTINUE POUR ORDONNEMENT D'ENSEMBLES DE  
DONNEES CATEGORIELS DANS UN SYSTEME DE TRAITEMENT DE DONNEES

Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NY  
10504, US, US (Residence), US (Nationality)  
IBM UNITED KINGDOM LIMITED, PO Box 41, North Harbour, Portsmouth,  
Hampshire PO6 3AU, GB, GB (Residence), GB (Nationality), (Designated  
only for: MG)

Inventor(s):

BEYGELZIMER Alina, 206 University Park, Rochester, NY 14620, US,  
PERNG Chang-Shing, 102 Babbit Road, Bedford Hills, NY 10507, US,  
MA Sheng, 13 Justine Court, Briarcliff Manor, NY 10510, US,  
HELLERSTEIN Joseph, 41 Wolden Road, Ossining, NY 10562, US

Legal Representative:

MOSS Robert Douglas (agent), IBM United Kingdom Limited, Intellectual  
Property Law, Hursley Park, Winchester, Hampshire SO21 2JN, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200275592 A2 20020926 (WO 0275592)

Application: WO 2002GB1117 20020311 (PCT/WO GB0201117)

Priority Application: US 2001812250 20010319

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO  
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9332

English Abstract

Techniques for ordering categorical attributes so as to better visualize data are provided. In accordance with one embodiment of the invention, an ordering algorithm comprises the steps of: (a) translating the discrete ordering problem to a continuous optimization problem; (b) solving the continuous optimization problem; and (c) mapping an optimal continuous solution to the closest discrete solution.

French Abstract

L'invention concerne des techniques d'ordonnancement d'attributs categoriels de maniere a ameliorer la visualisation de donnees. Selon un mode de realisation de l'invention, un algorithme d'ordonnancement comporte les etapes suivantes: (a) transcription du probleme d'ordonnancement discret en probleme d'optimisation continue; (b) resolution du probleme d'optimisation continue; et (c) mise en correspondance d'une solution continue optimale avec la solution discrete

la plus proche.

Legal Status (Type, Date, Text)

Publication 20020926 A2 Without international search report and to be republished upon receipt of that report.

Examination 20021024 Request for preliminary examination prior to end of 19th month from priority date

1/5/9 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00939279 \*\*Image available\*\*

SYSTEM FOR EMBEDDING CORRELATED PERFORMANCE MEASUREMENTS

SYSTEME PERMETTANT D'INCORPORER DES MESURES DE PERFORMANCE CORRELÉES

Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NY 10504, US, US (Residence), US (Nationality)

IBM UNITED KINGDOM LIMITED, P O Box 41, North Harbour, Portsmouth, Hampshire PO6 3AU, GB, GB (Residence), GB (Nationality), (Designated only for: MG)

Inventor(s):

MILLS Nathaniel III, 16 Deer Hill Lane, Coventry, CT 06238, US,

KRUEGER LeRoy Jr, 3112 Royal Troon, Woodstock, GA 30189, US,

KRISHNAKUMAR Srirama Mandyam, 2 Montana Place, White Plains, NY 10607, US

SQUILLANTE Mark, 21 Scofield Road, Pound Ridge, NY 10576, US,

HELLERSTEIN Joseph, 41 Wolden Road, Ossining, NY 10562, US

Legal Representative:

BURT Roger James (agent), IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Winchester, Hampshire SO21 2JN, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200273412 A2-A3 20020919 (WO 0273412)

Application: WO 2002GB1004 20020306 (PCT/WO GB0201004)

Priority Application: US 2001274761 20010309; US 2001875722 20010606

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-011/34

International Patent Class: H04L-029/06

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7487

English Abstract

Techniques for use in accordance with application performance decomposition are provided which take advantage of the communications protocol used to carry a transaction between application components in a distributed computing network. Specifically, the invention extends the communications protocol by embedding data, such as timestamp and duration measurement data, in the protocol itself, rather than extending or altering the application or transaction data carried by the protocol as in existing approaches. Thus, the invention provides natural correlation of interactions of distributed application components on such transactions without modification to the application or transaction data. Because the correlation is performed in-line with the application component interactions, minimal data management overhead is required, and correlated performance decomposition is made possible in real-time for

the transaction. Furthermore, subsequent processing stages of the distributed application can interpret the communications protocol to glean processing durations of previous stages in order to make decisions regarding treatment of the transaction.

#### French Abstract

La presente invention concerne des techniques utilisables selon la decomposition des performance d'applications qui exploite le protocole de communications mis en oeuvre pour effectuer une transaction entre des composantes d'applications dans un reseau d'informatique distribue. L'invention developpe le protocole de communications par l'incorporation de donnees, telles des donnees d'horodatage et de mesures de duree, dans le protocole lui-meme, plutot que par l'extension ou la modification des donnees d'applications ou de transactions effectuees par le protocole comme dans les techniques existantes. Ainsi, l'invention propose une correlation naturelle des interactions de composantes d'applications reparties sur de telles transactions sans modification des donnees d'applications et de transactions. Etant donne que la correlation est effectuee en ligne avec les interactions des composantes d'applications, elle necessite un surdebit de gestion de donnees minimal, et la decomposition correlee des performances est rendue possible en temps reel pour la transaction. fig. 1 : 105 APPLICATION CLIENT 110 APPLICATION SERVEUR 100 INTERNET/INTRANET 120 IDENTIFIANT DE SEQUENCE DE TRANSACTION 115 HORODATAGE CLIENT 1: ENVOI DE REQUETE 135 HORODATAGE CLIENT 2: RECEPTION D'EN-TETE DE REPONSE (CONTIENT HORODATAGE SERVEUR 1 ET 2) 145 HORODATAGE CLIENT 3: RECEPTION DE DONNEES D'APPLICATION A TEMPS B TC1-TC2=PERSPECTIVE DE CLIENT DE LA REPONSE DE SERVEUR C TS1-TS2=PERSPECTIVE DE SERVEUR DU TEMPS DE TRAITEMENT DE SERVEUR D TC3-TC2=PERSPECTIVE DE CLIENT DU TEMPS DE LIVRAISON DE CONTENU

#### Legal Status (Type, Date, Text)

Publication 20020919 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20021010 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20030731 Late publication of international search report  
Republication 20030731 A3 With international search report.  
Republication 20030731 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

1/5/10 (Item 4 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT  
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00882946 \*\*Image available\*\*

**APPARATUS AND METHOD FOR USE IN A COMPUTER HOSTING SERVICES ENVIRONMENT**  
**APPAREIL ET PROCEDE UTILISEES DANS UN ORDINATEUR HEBERGEANT UN**  
**ENVIRONNEMENT DE SERVICES**

Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NY 10504, US, US (Residence), US (Nationality)  
IBM UNITED KINGDOM LIMITED, North Harbour, P.O. Box 41, Portsmouth, Hampshire PO6 3AU, GB, GB (Residence), GB (Nationality), (Designated only for: MG)

Inventor(s):

DAN Asit, 6 Heritage Drive, Pleasantville, NY 10570, US,  
DIAS Daniel, 3380 Sunny Court, Mohegan Lake, NY 10547, US,  
HELLERSTEIN Joseph, 41 Wolden Road, Ossining, NY 10562, US

Legal Representative:

BURT Roger James (agent), IBM United Kingdom Limited, Intellectual Property Law Dept., Hursley Park, Winchester, Hampshire SO21 2JN, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200217065 A2-A3 20020228 (WO 0217065)

Application: WO 2001GB3045 20010706 (PCT/WO GB0103045)

Priority Application: US 2000642526 20000818

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ  
DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04L-012/24

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6705

#### English Abstract

Computer-based methods and systems are provided for building, provisioning and executing one or more electronic service level agreements (eSLAs) for Web and other computer hosting services, which specify and enforce service contracts for Web and other computer hosting services. In one aspect of the invention, a computer-based eSLA system (1000) includes four main components: (1) an eSLA builder (3000); (2) an eSLA provisioner (6000); (3) one or more execution systems (2000); and (4) a system configuration and measurement system (7000). Generally, the eSLA builder component (3000) provides the mechanism for defining and pricing the eSLA, checking the validity of the eSLA and a repository for storing the completed eSLAs. The provisioning system (6000) is responsible for configuring the run-time system in order to meet one or a set of eSLAs. The execution system (2000) is responsible for handling the run-time user requests, e.g., Web servers and load distributors, and a mechanism for enforcing the eSLAs at run-time. The system configuration and measurement system (7000) maintains information on the current system configuration, and run-time information on the metrics that are part of the eSLA.

#### French Abstract

L'invention concerne des systemes et des procedes informatiques permettant de creer, de fournir et d'executer au moins un contrat de service electronique (eSLA) pour le Web et d'autres services hebergeant un ordinateur, qui specifient et executent des contrats de service pour le Web et les services precites. Selon un aspect de l'invention, un systeme informatique eSLA (1000) comprend quatre composants principaux: 1) un createur de eSLA (3000); 2) un fournisseur de eSLA (6000); 3) au moins un systeme d'execution (2000); et 4) un systeme (7000) de mesure et de configuration de systeme. En general, le composant de creation de eSLA (3000) comprend un mecanisme permettant de definir, d'évaluer, et de verifier la validite du eSLA, et un referentiel permettant de stocker les eSLAs executees. Le systeme de fourniture (6000) sert a configurer le systeme pendant l'execution afin de le conforer a moins un ensemble de eSLA. Le systeme d'execution (2000) sert a manipuler les demandes utilisateur pendant l'execution, par exemple, des serveurs Web et des distributeurs de charge, et comprend un mecanisme permettant d'executer les eSLA pendant l'execution. Le systeme de configuration de systeme et de mesure (7000) conserve des informations sur la configuration du systeme courant, et des informations de duree d'execution sur les metriques faisant partie des eSLA.

#### Legal Status (Type, Date, Text)

Publication 20020228 A2 Without international search report and to be republished upon receipt of that report.

Examination 20020328 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20020906 Late publication of international search report  
Republication 20020906 A3 With international search report.

1/5/11 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015595048 \*\*Image available\*\*

WPI Acc No: 2003-657203/200362

XRPX Acc No: N03-523616

**Automatic software package distribution method involves customizing software package received by policy region based on specific information and distributing customized package to target machines in policy regions**

Patent Assignee: IBM CORP (IBMC ); INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; KAR G; KELLER A

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020129356	A1	20020912	US 2001755786	A	20010105	200362 B
CN 1363882	A	20020814	CN 2001130288	A	20011229	200362

Priority Applications (No Type Date): US 2001755786 A 20010105

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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US 20020129356	A1	21	G06F-009/455
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CN 1363882	A		G06F-009/06
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Abstract (Basic): US 20020129356 A1

**NOVELTY** - A software package (201) prepared based on predetermined information is distributed to each of the policy regions (1..n) of a distributed network. The package is customized based on regional distribution policies, dependence information specific to the target machines (202) and individual machine configuration information, and distributed to the target machines in the policy region.

**DETAILED DESCRIPTION** - INDEPENDENT CLAIMS are also included for the following:

- (1) automatic software package distribution method; and
- (2) article of manufacture for automatic software package distribution.

**USE** - For automatic distribution of the software package of the target machines in distributed network.

**ADVANTAGE** - The necessary package is alone delivered to the correct targets, thereby saving bandwidth and minimizing waste transmission.

**DESCRIPTION OF DRAWING(S)** - The figure shows the block diagram of the software package distribution system.

policy regions (1-n)  
software package (201)  
target machines (202)  
service distribution server (205)  
pp; 21 DwgNo 2/13

Title Terms: AUTOMATIC; SOFTWARE; PACKAGE; DISTRIBUTE; METHOD; CUSTOMISATION; SOFTWARE; PACKAGE; RECEIVE; REGION; BASED; SPECIFIC; INFORMATION; DISTRIBUTE; CUSTOMISATION; PACKAGE; TARGET; MACHINE; REGION

Derwent Class: T01; W01

International Patent Class (Main): G06F-009/06; G06F-009/455

International Patent Class (Additional): G06F-009/44; G06F-009/445

File Segment: EPI

1/5/12 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015535248 \*\*Image available\*\*

WPI Acc No: 2003-597398/200356

XRPX Acc No: N03-476124

**Input data set pattern mining method, involves mapping attributes of input data and identifying candidate patterns whose qualification function results are one greater and equal to predetermined threshold value**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: GRABARNIK G; HELLERSTEIN J L ; MA S; PERNG C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030097367	A1	20030522	US 2001976574	A	20011012	200356 B

Priority Applications (No Type Date): US 2001976574 A 20011012

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030097367	A1	20		G06F-007/00	

Abstract (Basic): US 20030097367 A1

NOVELTY - The method involves mapping attributes of an input data set to mapping values by a mapping module (310). Candidate patterns are formed as a group of two mapping values that occur within predetermined time period. A qualification function is computed for each candidate patterns and is identified as qualified patterns whose results are greater than or equal to predefined threshold value.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an apparatus for mining patterns.

USE - Used for performing pairwise analysis of data.

ADVANTAGE - The method includes a qualification condition that combines multiple qualification conditions, and is used to discover all significant pairwise patterns that are of interest to specific application.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of system architecture for mining pairwise patterns.

Mapping module. (310)

pp; 20 DwgNo 3/11

Title Terms: INPUT; DATA; SET; PATTERN; MINE; METHOD; MAP; ATTRIBUTE; INPUT ; DATA; IDENTIFY; CANDIDATE; PATTERN; QUALIFY; FUNCTION; RESULT; ONE; GREATER; EQUAL; PREDETERMINED; THRESHOLD; VALUE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

1/5/13 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015494031 \*\*Image available\*\*

WPI Acc No: 2003-556178/200352

XRPX Acc No: N03-441821

Dependent pattern discovery method for data processing technique, involves identification of input patterns satisfying dependency test

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; LIANG F; MA S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030078686	A1	20030424	US 2001929883	A	20010815	200352 B

Priority Applications (No Type Date): US 2001929883 A 20010815

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030078686	A1	19		G06K-009/00	

Abstract (Basic): US 20030078686 A1

NOVELTY - The method involves identifying one or more sets of items in the input data sets as one or more patterns based on the dependency test. The dependency test is satisfied when each of the items of the set is found dependent on each other with a prescribed significant level. The one or more identified patterns are finally obtained based on dependency test result.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for

the apparatus for mining one or more patterns in an input data sheet.

USE - Used for discovering infrequent but fully dependant patterns for data processing technique.

ADVANTAGE - The method provides techniques for mining and discovering patterns effectively and efficiently, that are valuable for a variety of applications. Discovering the d-pattern helps to develop event correlation rules, which can be used either for event compression or on-line monitoring.

DESCRIPTION OF DRAWING(S) - The drawing shows the flow diagram of a pattern mining methodology.

pp; 19 DwgNo 5/8

Title Terms: DEPEND; PATTERN; DISCOVER; METHOD; DATA; PROCESS; TECHNIQUE; IDENTIFY; INPUT; PATTERN; SATISFY; DEPEND; TEST

Derwent Class: T01

International Patent Class (Main): G06K-009/00

International Patent Class (Additional): G06F-007/00

File Segment: EPI

1/5/14 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015460291 \*\*Image available\*\*

WPI Acc No: 2003-522433/200349

XRPX Acc No: N03-414523

Off-line decision support provision apparatus for managing distributed computer system, creates and validates correlation rules, according to automated analysis of event data associated with network of computing devices

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: GRABARNIK G; HELLERSTEIN J L ; MA S; PERNG C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030074439	A1	20030417	US 2001976540	A	20011012	200349 B

Priority Applications (No Type Date): US 2001976540 A 20011012

Patent Details:

Patent No	Kind	Lan	Pg	Main	IPC	Filing Notes
US 20030074439	A1	14		G06F-015/173		

Abstract (Basic): US 20030074439 A1

NOVELTY - A processor (702) analyses data representing past events associated with network of computing devices, by visualizing portions of past event data and determining patterns in the event data. The correlation rules are created and validated according to the automated analysis of the event data. A memory (704) stores the analysis results and rules.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) off-line decision support provision method;
- (2) article of manufacture comprising machine readable medium storing off-line decision support provision program; and
- (3) event management decision support system.

USE - For network-based applications, business applications, for use in managing distributed computer system.

ADVANTAGE - The distributed computer system is managed efficiently in real-time by creating and validating correlation rules according to automated analysis event data.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of hardware architecture of computer system implementing off-line decision support system.

processor (702)

memory (704)

pp; 14 DwgNo 7/7

Title Terms: LINE; DECIDE; SUPPORT; PROVISION; APPARATUS; MANAGE;

DISTRIBUTE; COMPUTER; SYSTEM; VALID; CORRELATE; RULE; ACCORD; AUTOMATIC;  
ANALYSE; EVENT; DATA; ASSOCIATE; NETWORK; COMPUTATION; DEVICE  
Derwent Class: P85; T01  
International Patent Class (Main): G06F-015/173  
International Patent Class (Additional): G09G-005/00  
File Segment: EPI; EngPI

1/5/15 (Item 5 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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015450586 \*\*Image available\*\*  
WPI Acc No: 2003-512728/200348  
XRPX Acc No: N03-406914

Event relationship network construction method for event management of distributed system, involves using event data from event log representing historical events associated with particular system  
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: GRABARNIK G; HELLERSTEIN J L ; MA S; PERNG C; THOENEN D H  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 20030074440 A1 20030417 US 2001976543 A 20011012 200348 B

Priority Applications (No Type Date): US 2001976543 A 20011012

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20030074440 A1 16 G06F-015/173

Abstract (Basic): US 20030074440 A1

NOVELTY - The event relationship networks comprising nodes representing events and links connecting correlated nodes, are generated from the event data acquired from an event log (1102), which represents historical events associated with a particular system. The generated event relationship networks are utilized to construct correlation rules (1114) which are used by a correlation engine in the event management system.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) event relationship network construction apparatus; and  
(2) article comprising recorded medium storing program for constructing event relationship network.

USE - For constructing event relationship network (ERN) for event management of distributed system.

ADVANTAGE - The event data are utilized for automatically validating and completing existing event relationship network, and constructing new event relationship network.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the event relationship network construction apparatus.

event log (1102)  
correlation rules (1114)  
pp; 16 DwgNo 11/12

Title Terms: EVENT; RELATED; NETWORK; CONSTRUCTION; METHOD; EVENT; MANAGEMENT; DISTRIBUTE; SYSTEM; EVENT; DATA; EVENT; LOG; REPRESENT; HISTORY; EVENT; ASSOCIATE; SYSTEM

Derwent Class: T01  
International Patent Class (Main): G06F-015/173  
File Segment: EPI

1/5/16 (Item 6 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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015270623 \*\*Image available\*\*  
WPI Acc No: 2003-331552/200331

XRPX Acc No: N03-265645

Data pattern mining method for e.g. store management application, involves identifying mutually dependent patterns based on comparison of conditional probability values associated with items to preset threshold value

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; MA S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030023591	A1	20030130	US 2001918253	A	20010730	200331 B

Priority Applications (No Type Date): US 2001918253 A 20010730

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030023591	A1	19		G06F-007/00	

Abstract (Basic): US 20030023591 A1

NOVELTY - A set of items in an input data set are identified as mutually dependent patterns or m-patterns based on comparisons of conditional probability values associated with the items to a preset threshold value. The identified patterns are then output based on the result of the comparisons.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) apparatus for mining patterns in input data set of items; and  
(2) article of manufacture comprising machine readable medium storing instructions for mining patterns in input data set of items.

USE - For data processing in store management application, customer transaction analysis, system management application.

ADVANTAGE - Enables discovering infrequent patterns effectively and efficiently. The pattern captures mutual dependence among the set of items and represents the set of items that often occur together.

DESCRIPTION OF DRAWING(S) - The figure shows the example of concept of m-patterns in accordance with event sequence data.

pp; 19 DwgNo 2/9

Title Terms: DATA; PATTERN; MINE; METHOD; STORAGE; MANAGEMENT; APPLY; IDENTIFY; MUTUAL; DEPEND; PATTERN; BASED; COMPARE; CONDITION; PROBABILITY ; VALUE; ASSOCIATE; ITEM; PRESET; THRESHOLD; VALUE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

1/5/17 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015160213

WPI Acc No: 2003-220741/200321

XRPX Acc No: N03-176155

Information technology service level management apparatus for computer system, measures operation of IT system in terms of business metrics based on electronic contract maintained in processor

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; KAR G; KELLER A; MILLS W N; MORAR J F

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030004848	A1	20030102	US 2001896254	A	20010629	200321 B

Priority Applications (No Type Date): US 2001896254 A 20010629

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030004848	A1	14		G06F-017/60	

Abstract (Basic): US 20030004848 A1

NOVELTY - A processor maintains an electronic contract related to business transaction information in IT terms, financial implications of business transactions service levels and financial reporting. The operation of the IT system in terms of business metrics, is measured based on the electronic contract.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) computer based application for managing IT service level;
- (2) computer based method for managing IT service level; and
- (3) machine readable medium storing IT service level management program.

USE - For managing IT service level in computer system.

ADVANTAGE - Businesses can manage their IT in a way that achieves financial objectives. The specific of the transactions and the associated financial can be changed without recompiling code or changing program interfaces. Enables accessing immediately the financial and monetary impact of an IT service disruption or outage, thus allowing to prioritize repair and troubleshooting tasks.

pp; 14 DwgNo 0/8

Title Terms: INFORMATION; TECHNOLOGY; SERVICE; LEVEL; MANAGEMENT; APPARATUS ; COMPUTER; SYSTEM; MEASURE; OPERATE; SYSTEM; TERM; BUSINESS; BASED; ELECTRONIC; CONTRACT; MAINTAIN; PROCESSOR

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60

File Segment: EPI

1/5/18 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015079111 \*\*Image available\*\*

WPI Acc No: 2003-139629/200313

XRPX Acc No: N03-110939

Temporal data mining system for online services, counts and determines temporal pattern instances based on set procedure or sequential algorithm to perform event caching

Patent Assignee: IBM CORP (IBMC )

Inventor: HELLERSTEIN J L ; MA S; PERNG C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020174083	A1	20021121	US 2001860154	A	20010517	200313 B

Priority Applications (No Type Date): US 2001860154 A 20010517

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020174083	A1	19		G06F-017/30	

Abstract (Basic): US 20020174083 A1

NOVELTY - The detector counts occurrence of temporal pattern instances, to identify specific instance, based on the quick/no-reuse procedure or sequential algorithms. The events are cached within set time slots, based on the instance identification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Temporal data mining method; and
- (2) Temporal data mining program storage device.

USE - For temporal data mining in online transaction services through Internet. Also for managing complex system including computer networks.

ADVANTAGE - Optimizes data scan and memory usage, due to use of sequential counting algorithm. Facilitates efficient identification of instances even in case of large amount of events, by avoiding redundant comparison of data structures.

DESCRIPTION OF DRAWING(S) - The figure shows an explanatory drawing of online event mining.

PP; 19 DwgNo 1/13  
Title Terms: TEMPORAL; DATA; MINE; SYSTEM; SERVICE; COUNT; DETERMINE;  
TEMPORAL; PATTERN; INSTANCE; BASED; SET; PROCEDURE; SEQUENCE; ALGORITHM;  
PERFORMANCE; EVENT  
Derwent Class: T01; T05; W01  
International Patent Class (Main): G06F-017/30  
International Patent Class (Additional): G06F-007/00; G06F-017/00;  
G06N-005/02  
File Segment: EPI

1/5/19 (Item 9 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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015029899 \*\*Image available\*\*  
WPI Acc No: 2003-090416/200308  
XRPX Acc No: N03-071393

Correlated performance data embedding for distributed applications in Internet, involves embedding performance data with time stamp of application component in communication protocol, without altering transaction data

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC ); IBM UK LTD (IBMC )  
Inventor: HELLERSTEIN J L ; KRISHNAKUMAR S M; KRUEGER L A; MILLS W N;

SQUILLANTE M S; HELLERSTEIN J ; KRUEGER L; MILLS N; SQUILLANTE M

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020129137	A1	20020912	US 2001274761	P	20010309	200308 B
			US 2001875722	A	20010606	
WO 200273412	A2	20020919	WO 2002GB1004	A	20020306	200308

Priority Applications (No Type Date): US 2001274761 P 20010309; US 2001875722 A 20010606

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020129137	A1	15		G06F-015/173	Provisional application US 2001274761

WO 200273412 A2 E G06F-011/34

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20020129137 A1

NOVELTY - The performance data including time stamp, duration and identifier of an application component, is embedded in a HTTP protocol without altering the transaction data related to the execution of a distributed application in the protocol. The embedded data is transmitted with the transaction data to the application components to obtain correlated application performance data.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Correlated performance data embedding apparatus; and
- (2) Article of manufacture comprising computer-readable medium for embedding correlated performance data in HTTP protocol.

USE - For embedding correlated performance data for distributed applications executed in distributed computing network such as Internet and intranet.

ADVANTAGE - The correlation is performed in-line with the application component interactions, hence minimal data management overhead is required and correlated performance decomposition is performed in real-time for the transaction. By embedding the performance data in the HTTP protocol, a natural correlation of

interactions of distributed application components is provided without modifying application and transaction data.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic view of the client/server application.

pp; 15 DwgNo 1/5

Title Terms: CORRELATE; PERFORMANCE; DATA; EMBED; DISTRIBUTE; APPLY; EMBED; PERFORMANCE; DATA; TIME; STAMP; APPLY; COMPONENT; COMMUNICATE; PROTOCOL; ALTER; TRANSACTION; DATA

Derwent Class: T01; W01

International Patent Class (Main): G06F-011/34; G06F-015/173

International Patent Class (Additional): G06F-015/16

File Segment: EPI

1/5/20 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014901996 \*\*Image available\*\*

WPI Acc No: 2002-722702/200278

XRPX Acc No: N02-569895

Periodic pattern identification method for computer system management involves determining period length for each classified event data with respect to event occurrence and occurrence time tolerance limits

Patent Assignee: HELLERSTEIN J L (HELL-I); MA S (MASS-I)

Inventor: HELLERSTEIN J L ; MA S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020107841	A1	20020808	US 2000739432	A	20001218	200278 B

Priority Applications (No Type Date): US 2000739432 A 20001218

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020107841	A1	22		G06F-007/00	

Abstract (Basic): US 20020107841 A1

NOVELTY - An event data is converted into several classes partially to obtain application independent event data. The period lengths for each class are determined based on the event occurrence and occurrence time tolerance values. The event classes are merged into temporally associated groups in accordance with the period lengths.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Periodic pattern identification apparatus; and
- (2) Article of manufacture comprising computer readable medium storing pattern detection programs.

USE - For identifying periodic patterns of event data utilized in systems management of distributed computer and/or communication network. Also for use in management process control and manufacturing facility.

ADVANTAGE - Ensures automatic recognition of periodic patterns even with noise components thereby information resource management is simplified.

DESCRIPTION OF DRAWING(S) - The figure shows a functional block diagram of periodic pattern identification system.

pp; 22 DwgNo 3/13

Title Terms: PERIODIC; PATTERN; IDENTIFY; METHOD; COMPUTER; SYSTEM; MANAGEMENT; DETERMINE; PERIOD; LENGTH; CLASSIFY; EVENT; DATA; RESPECT; EVENT; OCCUR; OCCUR; TIME; TOLERANCE; LIMIT

Derwent Class: T01; U22

International Patent Class (Main): G06F-007/00

International Patent Class (Additional): G06E-001/00; G06E-003/00; G06F-015/18; G06F-017/30; G06G-007/00

File Segment: EPI

1/5/21 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014846831 \*\*Image available\*\*

WPI Acc No: 2002-667537/200271

XRPX Acc No: N02-528173

**Computer-based method of ordering categorical values of one or more attributes associated with a data set in a data processing system making part of computed continuous ordering**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC ); IBM UK LTD (IBMC )

Inventor: BEYGELZIMER A; HELLERSTEIN J L ; MA S; PERNG C; HELLERSTEIN J

Number of Countries: 100 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200275592	A2	20020926	WO 2002GB1117	A	20020311	200271..B
US 20020161736	A1	20021031	US 2001812250	A	20010319	200274
US 6615211	B2	20030902	US 2001812250	A	20010319	200359

Priority Applications (No Type Date): US 2001812250 A 20010319

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200275592	A2	E	33	G06F-017/30	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

US 20020161736	A1	G06F-007/00
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US 6615211	B2	G06F-017/30
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Abstract (Basic): WO 200275592 A2

NOVELTY - The method involves obtaining the categorical values of one or more attributes associated with a data set. A task is formed of ordering the categorical values of the one or more attributes associated with the data set as a continuous optimization ordering problem. At least one continuous ordering solution is computed to the continuous optimization ordering problem.

DETAILED DESCRIPTION - At least a portion of the computed continuous ordering solution is made available for use in accordance with a data visualization system.

INDEPENDENT CLAIMS are included for

- (1) a data processing apparatus
- (2) a computer program.

USE - For data exploration and analysis techniques.

ADVANTAGE - Categorical attributes are ordered so as to better visualize data.

DESCRIPTION OF DRAWING(S) - The figure shows a system using an ordering mechanism as a part of data pre-processing.

pp; 33 DwgNo 2B/7

Title Terms: COMPUTER; BASED; METHOD; ORDER; VALUE; ONE; MORE; ATTRIBUTE; ASSOCIATE; DATA; SET; DATA; PROCESS; SYSTEM; PART; COMPUTATION; CONTINUOUS; ORDER

Derwent Class: T01

International Patent Class (Main): G06F-007/00; G06F-017/30

File Segment: EPI

1/5/22 (Item 12 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014835543 \*\*Image available\*\*

WPI Acc No: 2002-656249/200270

Related WPI Acc No: 2002-641825

XRPX Acc No: N02-518708

Measurement acquisition method in distributed systems, involves constructing predictive model including model definition, parameter estimates and input data and managing target system resources using prediction values

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HAUS N; HELLERSTEIN J L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020099821	A1	20020725	US 9842060	A	19980313	200270 B
			US 2002109724	A	20020329	

Priority Applications (No Type Date): US 9842060 A 19980313; US 2002109724 A 20020329

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020099821	A1	39	G06F-015/173	Div ex application US 9842060

Abstract (Basic): US 20020099821 A1

NOVELTY - A predictive model (141) including specifications such as model definition, estimates of model parameters and input data is dynamically constructed. The resources of a managed system (125) is managed using prediction values for resource consumption, as generated by the predictive model.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Predictive model-based measurement acquisition system; and
- (2) Machine readable predictive model-based measurement acquisition program storage device.

USE - For predictive model-based measurement acquisition of computer and communication systems especially data processing systems e.g. handheld devices, mobile devices or network devices e.g. router in distributed systems for management applications e.g. health monitor application.

ADVANTAGE - Resource management is attained efficiently by using the predictive model to forecast future values of resource consumption.

DESCRIPTION OF DRAWING(S) - The figure shows the predictive model-based measurement acquisition system.

Managed system (125)

Predictive model (141)

pp; 39 DwgNo 1A/20

Title Terms: MEASURE; ACQUIRE; METHOD; DISTRIBUTE; SYSTEM; CONSTRUCTION; PREDICT; MODEL; MODEL; DEFINE; PARAMETER; ESTIMATE; INPUT; DATA; MANAGE; TARGET; SYSTEM; RESOURCE; PREDICT; VALUE

Derwent Class: T01

International Patent Class (Main): G06F-015/173

File Segment: EPI

1/5/23 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014821119 \*\*Image available\*\*

WPI Acc No: 2002-641825/200269

XRPX Acc No: N02-507250

Predictive model base method for measurement data acquisition, involves processing requests for measurement variable values based on predictive model on manager system, after predictive mode operation

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HAUS N; HELLERSTEIN J L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6430615	B1	20020806	US 9842060	A	19980313	200269 B

Priority Applications (No Type Date): US 9842060 A 19980313

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 6430615 B1 42 G06F-015/173

Abstract (Basic): US 6430615 B1

NOVELTY - The method involves processing the requests for the measurement variable values based on the predictive model on the manager system, after the predictive model is operated on both the manager system and the managed system. The predictive model is dynamically constructed based on the non-static measurement variable values on both the manager system and the disconnectable managed system.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a program storage device;  
(b) and a predictive model based measurement acquisition system for creating and managing one or more predictive models that predict values of measurement variables in distributed system.

USE - For measurement data acquisition in a distributed system.  
Used for aiding in integrating data from multiple sources.

ADVANTAGE - Reduces the volume of messages exchanged between managers and agents. Enables addressing disconnected operation. Enables synchronization of time stamps. Provides improved scalability.

DESCRIPTION OF DRAWING(S) - The figure shows the example of the sequencing of scenarios in an MBM protocol.

pp; 42 DwgNo 12/20

Title Terms: PREDICT; MODEL; BASE; METHOD; MEASURE; DATA; ACQUIRE; PROCESS; REQUEST; MEASURE; VARIABLE; VALUE; BASED; PREDICT; MODEL; MANAGE; SYSTEM; AFTER; PREDICT; MODE; OPERATE

Derwent Class: T01

International Patent Class (Main): G06F-015/173

File Segment: EPI

1/5/24 (Item 14 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014768843 \*\*Image available\*\*

WPI Acc No: 2002-589547/200263

XRPX Acc No: N02-467796

Computer-based correlation rule construction for event management system, involves learning correlation rule predicates from selected event patterns, adding corresponding action to predicates to form correlation rules

Patent Assignee: HELLERSTEIN J L (HELL-I); MA S (MASS-I); RABENHORST D A (RABE-I)

Inventor: HELLERSTEIN J L ; MA S; RABENHORST D A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020073195	A1	20020613	US 2000731937	A	20001207	200263 B

Priority Applications (No Type Date): US 2000731937 A 20001207

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020073195 A1 19 G06F-015/173

Abstract (Basic): US 20020073195 A1

NOVELTY - The event patterns that represent the event data corresponding to the network of computing devices managed by an event management system, are selected. The predicates of correlation rules are learnt automatically from selected event patterns. The corresponding actions are added to the predicates to form the correlation rules.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Correlation rules construction method; and
- (2) Article of manufacture for correlation rules construction.

USE - For constructing computer-based correlation rules for event management system.

ADVANTAGE - The construction of correlation rules is made easier. Allows the persons who are knowledgeable about operations, to develop rules, even though they are not trained in constructing correlation rules.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the machine aided rules construction system.

pp; 19 DwgNo 1/11

Title Terms: COMPUTER; BASED; CORRELATE; RULE; CONSTRUCTION; EVENT; MANAGEMENT; SYSTEM; LEARNING; CORRELATE; RULE; SELECT; EVENT; PATTERN; ADD; CORRESPOND; ACTION; FORM; CORRELATE; RULE

Derwent Class: T01

International Patent Class (Main): G06F-015/173

File Segment: EPI

1/5/25 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014585415

WPI Acc No: 2002-406119/200244

XRPX Acc No: N02-318838

A predictive model that addresses the problem of prediction of non-stationary processes by dynamically managing multiple models

**NoAbstract**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; ZHANG F

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CN 1329320	A	20020102	CN 2001121468	A	20010608	200244 B
GB 2368425	A	20020501	GB 200113938	A	20010608	200250

Priority Applications (No Type Date): US 2000591122 A 20000609

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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CN 1329320 A G06F-017/60

GB 2368425 A G06F-017/60

Title Terms: PREDICT; MODEL; ADDRESS; PROBLEM; PREDICT; NON; STATIONARY; PROCESS; DYNAMIC; MANAGE; MULTIPLE; MODEL; NOABSTRACT

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

1/5/26 (Item 16 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014522420 \*\*Image available\*\*

WPI Acc No: 2002-343123/200238

XRPX Acc No: N02-269872

End-user transaction recognition apparatus for e-commerce application, produces training data associated with remote procedure calls, based on which end-user transactions are recognized

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC ); IBM CORP (IBMC )

Inventor: HELLERSTEIN J L ; RISH I; THATHACHAR J S

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2367402	A	20020403	GB 200111398	A	20010510	200238 B

KR 2001107554 A 20011207 KR 200123234 A 20010428 200238  
JP 2002041464 A 20020208 JP 2001151899 A 20010522 200238

Priority Applications (No Type Date): US 2000575553 A 20000522

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2367402	A		29	G06F-009/46	
KR 2001107554	A			G06F-015/00	
JP 2002041464	A		16	G06F-015/00	

Abstract (Basic): GB 2367402 A

NOVELTY - Several processors obtain one or more remote procedure calls (RPC) (103) in association to which training data are produced. One or more end-user transactions (EUTs) (101) are recognized from the remote procedure calls based on training data. A memory stores the results of the EUT recognition.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) End-user transaction recognition method;
- (b) End-user transaction recognizing model generation method;
- (c) Automatic training data generation method;
- (d) Automatic training data generation apparatus;
- (e) Computer program for end-user transaction recognition

USE - For recognition of end-user transaction in distributed information system used for e-commerce applications.

ADVANTAGE - Since EUTs are recognized automatically based on training data, good quality of service is provided to end users of information system. Improved system security and better resource management are achieved.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of EUT recognition system architecture.

EUT (101)

RPC (103)

pp; 29 DwgNo 1/11

Title Terms: END; USER; TRANSACTION; RECOGNISE; APPARATUS; APPLY; PRODUCE; TRAINING; DATA; ASSOCIATE; REMOTE; PROCEDURE; CALL; BASED; END; USER; TRANSACTION; RECOGNISE

Derwent Class: T01

International Patent Class (Main): G06F-009/46; G06F-015/00

File Segment: EPI

1/5/27 (Item 17 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014471409

WPI Acc No: 2002-292112/200233

XRPX Acc No: N02-228057

Computer automatically builds and operates an electronic service agreement between a service provider and client from a client application and checks the agreement for consistency with existing service commitments

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC ); IBM UK LTD (IBMC )

Inventor: DAN A; DIAS D; HELLERSTEIN J

Number of Countries: 093 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200217065	A2	20020228	WO 2001GB3045	A	20010706	200233 B
AU 200169290	A	20020304	AU 200169290	A	20010706	200247

Priority Applications (No Type Date): US 2000642526 A 20000818

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200217065	A2	E	24	G06F-009/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP

KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW  
AU 200169290 A G06F-009/00 Based on patent WO 200217065

Abstract (Basic): WO 200217065 A2

NOVELTY - An electronic service level agreement is established and priced automatically by the computer system in response to a client request for service. The agreements are then operated automatically by the system which configures itself to deliver the particular client services in response to client run-time requests for service. Measurements are taken on the current system and its configuration. The services may include web based and other computer-implemented services. Service agreement violations lead to a renegotiation of the agreement.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

(a) a computer based method for use in a computer hosting services environment

(b) a computer program product for building and operating an electronic service agreement

USE - In computer hosting services environments.

ADVANTAGE - provides an automatic system.

pp; 24 DwgNo 0/10

Title Terms: COMPUTER; AUTOMATIC; BUILD; OPERATE; ELECTRONIC; SERVICE; AGREE; SERVICE; CLIENT; CLIENT; APPLY; CHECK; AGREE; CONSISTENCY; EXIST; SERVICE

Derwent Class: T01

International Patent Class (Main): G06F-009/00

File Segment: EPI

1/5/28 (Item 18 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014292354 \*\*Image available\*\*

WPI Acc No: 2002-113056/200215

XRPX Acc No: N02-084156

Information system automatically navigates measurement data using multidimensional database components, dimensional and cube selection components to select cube having desired information

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; YUE P C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6330564	B1	20011211	US 99247239	A	19990210	200215 B

Priority Applications (No Type Date): US 99247239 A 19990210

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6330564	B1	28	G06F-017/00		

Abstract (Basic): US 6330564 B1

NOVELTY - An automated navigation engine (105) uses a multidimensional database (MDDB) component, a dimension selection component, that quantifies information provided by navigating to a dimension, and a cube selection component that quantifies the extent to which cube provides information, to select the best cube having desired information.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Measurement data automatic navigation for information gathering;

(b) Program storage device storing program instructions to navigate measurement data

USE - For diagnosis of computer performance or information system

performance problem and for problem isolation, trending analysis, data mining, etc.

ADVANTAGE - Provides broader functions such as complete diagnostics and problem resolution of information system at reduced cost and increases the productivity of expert analysts.

DESCRIPTION OF DRAWING(S) - The figure shows the overall architecture of the information system.

Automated navigation engine (105)

pp; 28 DwgNo 1/17

Title Terms: INFORMATION; SYSTEM; AUTOMATIC; MEASURE; DATA; MULTIDIMENSIONAL; DATABASE; COMPONENT; DIMENSION; CUBE; SELECT; COMPONENT; ; SELECT; CUBE; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-017/00

International Patent Class (Additional): G06F-007/00

File Segment: EPI

1/5/29 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013834830 \*\*Image available\*\*

WPI Acc No: 2001-319042/200134

XRPX Acc No: N01-229339

Multidimensional system and method for ordering categorical attributes to better visualize multidimensional data obtains categorical attributes associated with multidimensional data and automatically ordering part of attributes

Patent Assignee: IBM CORP (IBMC ); INT BUSINESS MACHINES CORP (IBMC )

Inventor: HELLERSTEIN J L ; MA S

Number of Countries: 027 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1094422	A2	20010425	EP 2000309231	A	20001019	200134 B
CN 1303061	A	20010711	CN 2000125998	A	20001017	200159
US 20020188618	A1	20021212	US 99422708	A	19991021	200301
			US 2002209680	A	20020731	

Priority Applications (No Type Date): US 99422708 A 19991021; US 2002209680 A 20020731

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 1094422 A2 E 22 G06T-011/20

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

CN 1303061 A G06F-017/00

US 20020188618 A1 G06F-007/00 Cont of application US 99422708

Abstract (Basic): EP 1094422 A2

NOVELTY - System orders categorical attributes to better visualize multidimensional data by obtaining categorical attributes of the multidimensional data and automatically ordering part of attributes associated with data. It arranges attributes to give optimized visualization of categorical attributes. It makes results of automatic ordering available for use based on data visualization system.

DETAILED DESCRIPTION - An independent claim describes an apparatus for processing multidimensional data.

USE - As a system and a method for ordering categorical attributes to better visualize multidimensional data.

DESCRIPTION OF DRAWING(S) - The drawing shows a scatter plot using HOA, hierarchical ordering algorithm.

pp; 22 DwgNo 2/25

Title Terms: MULTIDIMENSIONAL; SYSTEM; METHOD; ORDER; ATTRIBUTE;

MULTIDIMENSIONAL; DATA; OBTAIN; ATTRIBUTE; ASSOCIATE; MULTIDIMENSIONAL;

DATA; AUTOMATIC; ORDER; PART; ATTRIBUTE

Derwent Class: T01

International Patent Class (Main): G06F-007/00; G06F-017/00; G06T-011/20  
File Segment: EPI

1/5/30 (Item 20 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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012899233 \*\*Image available\*\*  
WPI Acc No: 2000-071068/200006  
XRPX Acc No: N00-055487

**Quantitative performance diagnosis apparatus for computer, communication system**  
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: **HELLERSTEIN J L**  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 5996090 A 19991130 US 97959828 A 19971029 200006 B

Priority Applications (No Type Date): US 97959828 A 19971029

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 5996090 A 23 G06F-011/00

Abstract (Basic): US 5996090 A

NOVELTY - The measurement variable of the measurement navigation graph (MNG) representing the target system, has two incoming arcs and the MNG is annotated with numerical arc weights. The diagnosis engine (310) receives performance information about target system and computes quantitative diagnosis of performance problems by applying performance information to the MNG.

DETAILED DESCRIPTION - The representation of target system is performed as measurement navigation graph consisting of nodes the are measurement variables and arcs that specify decompositions of the variables. INDEPENDENT CLAIMS are also included for the following:

- (a) quantitative performance diagnosis method;
- (b) quantitative performance diagnosis program.

USE - For computer using operating system, DBMS, collaborative middleware in client server application and communication systems.

ADVANTAGE - Offers apparatus using diagnosis engine with design that offers gain over more control of system to be tested. Thus flexible diagnosis system is offered.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of quantitative performance diagnosis apparatus.

Diagnosis engine (310)  
pp; 23 DwgNo 3/15

Title Terms: QUANTITATIVE; PERFORMANCE; DIAGNOSE; APPARATUS; COMPUTER; COMMUNICATE; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-011/00

File Segment: EPI

1/5/31 (Item 21 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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011013215 \*\*Image available\*\*  
WPI Acc No: 1996-510165/199651  
XRPX Acc No: N96-430035

Data path selection method for e.g. personal computer help desk - involves searching for past problems which are relevant to new problem by accessing database, repetitively  
Patent Assignee: IBM CORP (IBMC ); INT BUSINESS MACHINES CORP (IBMC )  
Inventor: **HELLERSTEIN J**  
Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8263294	A	19961011	JP 95330902	A	19951219	199651 B
US 5717835	A	19980210	US 95371182	A	19950111	199813

Priority Applications (No Type Date): US 95371182 A 19950111

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8263294	A	15		G06F-009/44	
US 5717835	A	17		G06F-017/00	

Abstract (Basic): JP 8263294 A

The method involves solving a new problem with respect to past problems relevant to the new problem. The past problems are stored in a database (107).

When the new problem is put forth, the database is accessed and past problems are searched. The searching is repeated till the new problem is solved.

ADVANTAGE - Simplifies problem solving nature. Improves function of system.

Dwg.2/10

Title Terms: DATA; PATH; SELECT; METHOD; PERSON; COMPUTER; HELP; DESK; SEARCH; PASS; PROBLEM; RELEVANT; NEW; PROBLEM; ACCESS; DATABASE; REPEAT

Derwent Class: T01

International Patent Class (Main): G06F-009/44; G06F-017/00

File Segment: EPI

1/5/32 (Item 22 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010838694 \*\*Image available\*\*

WPI Acc No: 1996-335647/199634

XRPX Acc No: N96-282889

Computer system performance measurement method - involves generating record indicating that perceived performance is poor and updating status of system in response to user input

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: BERRY R F; HELLERSTEIN J

Number of Countries: 005 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 723228	A1	19960724	EP 95308788	A	19951205	199634 B
US 5881222	A	19990309	US 95376714	A	19950123	199917
KR 221375	B1	19990915	KR 9567123	A	19951229	200107
EP 723228	B1	20010912	EP 95308788	A	19951205	200155
DE 69522657	E	20011018	DE 622657	A	19951205	200169
			EP 95308788	A	19951205	

Priority Applications (No Type Date): US 95376714 A 19950123

Cited Patents: 3.Jnl.Ref; EP 529770; JP 4080838; US 5067107

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 723228	A1	E	9	G06F-011/32	

Designated States (Regional): DE FR GB

US 5881222	A	G06F-011/00
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KR 221375	B1	G06F-011/00
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EP 723228	B1	E	G06F-011/32
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Designated States (Regional): DE FR GB

DE 69522657	E	G06F-011/32	Based on patent EP 723228
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Abstract (Basic): EP 723228 A

The measuring method involves displaying an actionable window (205) for indicating the performance of the computer system and receiving a user input action (201) related to the actionable window. An indication (210) is provided on the display that the performance of the computer

system has changed.

During the receiving step an interrupt is provided to the computer system (100). It is determined whether the performance of the computer system is good if the performance is good, a status information (210) is updated positively, if the performance is not good, and the status information is updated negatively.

ADVANTAGE - Can more easily detect and diagnose performance problem within computer.

Dwg.2/4

Title Terms: COMPUTER; SYSTEM; PERFORMANCE; MEASURE; METHOD; GENERATE; RECORD; INDICATE; PERCEPTION; PERFORMANCE; POOR; UPDATE; STATUS; SYSTEM; RESPOND; USER; INPUT

Derwent Class: T01

International Patent Class (Main): G06F-011/00; G06F-011/32

File Segment: EPI

Set	Items	Description
S1	2452722	NAVIGAT? OR GUID? OR MANEUVER? OR MOVE?
S2	2397277	STRUCTURE? OR FORMATION? OR ARRANGEMENT? OR CONFIGURATION? OR ORGANIZATION
S3	12963	(DISSIMILAR? OR UNLIKE? OR UNIQUE OR DIFFERENT OR UNLIKE OR DISPARATE) (2N) S2
S4	4466112	SOURCE OR ORIGIN? OR BEGIN? OR ROOT? OR FIRST OR 1ST OR P- RIME OR PRIMARY OR INITIAL OR LEADING OR MAIN OR DOMINANT OR - CARDINAL OR ORIGINAL
S5	21226	DATA(2N) S2
S6	19028	DATASET? OR DATA() (SET? OR COLLECTION?)
S7	59812	(CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP?) (2N) (I- NFORMATION OR FACT? OR KNOWLEDGE)
S8	138195	"NOT"() (FOUND OR PRESENT) OR ABSENT OR ABSENCE OR LACKING - OR MISSING OR WANTING
S9	2048263	TARGET OR DIFFERENT OR ANOTHER OR SEPARATE
S10	3563229	COMPUTE? OR CALCULATE OR FIGURE? OR FIGURING OR MEASUR? OR MODEL???
S11	56	DISTANCE() METRIC?
S12	832	S4 (2N) S6
S13	332	S6 (2N) S9
S14	0	S11 AND S12 AND S13
S15	6264	S5 AND S4
S16	3966	S5 AND S9
S17	0	S15 AND S16 AND S11
S18	1448	S15 AND S16
S19	37	S12 AND S13
S20	88	S18 AND S3
S21	6	S20 AND S1
S22	99	S11 OR S19 OR S21
S23	44	S22 AND IC=G06F?

File 347:JAPIO Oct 1976-2003/Jun (Updated 031006)  
(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200364  
(c) 2003 Thomson Derwent

in tables. It stores expression data for polypeptide sequences that was generated by the microarrays using antibodies.

DESCRIPTION OF DRAWING(S) - The figure illustrates a method of generating the raw image data for a sample from a microarray.

pp; 41 DwgNo 3/15

Title Terms: EXPRESS; INFORMATION; PROCESS; SYSTEM; COMPRISE; PROCEDURE;

TABLE; STORAGE; ABUNDANT; HYBRID; DATA

Derwent Class: B04; D16; T01

International Patent Class (Main): G06F-017/30

File Segment: CPI; EPI

23/5/8 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014667823 \*\*Image available\*\*

WPI Acc No: 2002-488527/200252

Related WPI Acc No: 2002-215229

XRPX Acc No: N02-386087

Lease insurance information processing apparatus has processor which produces different data set about policy, insurance history, premium, liability, loss of risk and other insurance information

Patent Assignee: JOAO R A (JOAO-I)

Inventor: JOAO R A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020032586	A1	20020314	US 97903778	A	19970731	200252 B
			US 2001988445	A	20011120	

Priority Applications (No Type Date): US 2001988445 A 20011120; US 97903778 A 19970731

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020032586	A1	23		G06F-017/60	CIP of application US 97903778

Abstract (Basic): US 20020032586 A1

NOVELTY - An output device (6) displays and outputs the predetermined information contained in the fourth data set about an insurance premium and an insurance policy for providing an insurance product for wear and tear of a leased entity. A CPU (1) produces a fifth data set about a liability, a potential liability and a risk of loss associated with the fourth data set.

DETAILED DESCRIPTION - The lease insurance information processing apparatus (100) includes a RAM (3) which stores the **first data set** containing the information for producing an insurance premium and an insurance policy, such that the **first data set** is provided for providing an insurance for excess wear and tear of a leases entity. The CPU performs the processing of the **first data set** with a second data set about the entity to be leased and the term of the lease, and a third data set about the driving history, the usage history, the insurance history, the past leasing history of a leasing individual and the leasing entity, a desired lease insurance coverage, a lease insurance deductible and a lease insurance policy term. The CPU produces a fourth data set about an insurance premium and an insurance policy for providing an insurance product for wear and tear of the leased entity. An INDEPENDENT CLAIM is also included for a lease insurance information processing method.

USE - Applicable for providing insurance product for leased or rented e.g. vehicle, business articles and entities, residential and commercial premises and properties.

ADVANTAGE - Eliminates predetermined problems in protection of individual and business entities since all insurance information are produced and informed to individual and insurance personnel. Ensures protection of individual and business entities due to insurance acquired for entities.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of

lease insurance information processing apparatus.  
CPU (1)  
RAM (3)  
Output device (6)  
Lease insurance information processing apparatus (100)  
pp; 23 DwgNo 1/6  
Title Terms: LEASE; INSURANCE; INFORMATION; PROCESS; APPARATUS; PROCESSOR;  
PRODUCE; DATA; SET; INSURANCE; HISTORY; PREMIUM; LIABLE; LOSS; RISK;  
INSURANCE; INFORMATION  
Derwent Class: T01  
International Patent Class (Main): G06F-017/60  
File Segment: EPI

23/5/11 (Item 10 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014189201 \*\*Image available\*\*  
WPI Acc No: 2002-009898/200201  
Related WPI Acc No: 1999-590926; 2000-387537; 2000-411439; 2000-422572;  
2000-441625; 2000-441698; 2000-441788; 2000-543297; 2001-080143;  
2001-334657; 2001-373481; 2001-463808; 2001-541126; 2001-588757;  
2002-009590; 2002-178428; 2002-224340; 2002-237900; 2002-253707;  
2002-267085; 2002-381791; 2002-424553; 2002-425165; 2002-488576;  
2002-556467; 2002-673629; 2003-028768; 2003-045636; 2003-119160;  
2003-298103; 2003-341561; 2003-391899; 2003-393006; 2003-401452

XRPX Acc No: N02-008259

Word similarity judging method for trellis decoding in multi-pair transceiver system, involves producing errors representing distance metric between inputs representing received word and specific symbol

Patent Assignee: ABNOUS A (ABNO-I); AGAZZI O E (AGAZ-I); HATAMIAN M (HATA-I); KRUSE D (KRUS-I)

Inventor: ABNOUS A; AGAZZI O E; HATAMIAN M; KRUSE D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010025357	A1	20010927	US 98108319	P	19981113	200201 B
			US 99116946	P	19990120	
			US 99130616	P	19990422	
			US 99370370	A	19990809	
			US 2001858990	A	20010515	

Priority Applications (No Type Date): US 2001858990 A 20010515; US 98108319 P 19981113; US 99116946 P 19990120; US 99130616 P 19990422; US 99370370 A 19990809

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010025357	A1	32		G06F-011/00	Provisional application US 98108319
					Provisional application US 99116946
					Provisional application US 99130616
					Cont of application US 99370370
					Cont of patent US 6253345

Abstract (Basic): US 20010025357 A1

NOVELTY - A set of one-dimensional errors are produced from L inputs representing the received word. The errors represent a distance metric between one of the inputs and a symbol in one of two disjoint symbol subsets. The errors are combined to produce a set, such that each error is a distance of the received word from nearest codeword in the code subsets.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for system for computing distance of received word from codeword.

USE - For judging similarity between received word and associated codeword for trellis decoding of information signals in multi-pair transceiver system employed for local area network (LAN) applications.

ADVANTAGE - Enables performing high speed decoding of signal samples encoded according to IEEE 802.3ab standard. Enables quickly, accurately and effectively processing a transmitted symbol within a given time period. Reduces the computational complexity of symbol decoding, thus avoiding propagation delay.

DESCRIPTION OF DRAWING(S) - The figure shows the semi-schematic block diagram of exemplary trellis decoder.

pp; 32 DwgNo 6/18

Title Terms: WORD; SIMILAR; JUDGEMENT; METHOD; TRELLIS; DECODE; MULTI; PAIR ; TRANSCEIVER; SYSTEM; PRODUCE; ERROR; REPRESENT; DISTANCE; METRIC; INPUT ; REPRESENT; RECEIVE; WORD; SPECIFIC; SYMBOL

Derwent Class: T01; U21; W01

International Patent Class (Main): G06F-011/00

International Patent Class (Additional): G06F-011/30 ; H03M-013/00

File Segment: EPI

23/5/12 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014117616 \*\*Image available\*\*

WPI Acc No: 2001-601828/200168

Related WPI Acc No: 2001-406813

XRPX Acc No: N01-449024

Data field mapping method in data processing system, involves defining set of rules comprising multiple field types which are related with string or substring expressions specifying a field name

Patent Assignee: BODNAR E O (BODN-I); KAHN P R (KAHN-I); LIU G (LIUG-I); STARFISH SOFTWARE INC (STAR-N)

Inventor: BODNAR E O; KAHN P R; LIU G

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010014890	A1	20010816	US 9820047	A	19980206	200168 B
			US 2001778219	A	20010206	
US 6496835	B2	20021217	US 9820047	A	19980206	200307
			US 2001778219	A	20010206	

Priority Applications (No Type Date): US 9820047 A 19980206; US 2001778219 A 20010206

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010014890	A1	26		G06F-017/30	Cont of application US 9820047
					Cont of patent US 6216131
US 6496835	B2			G06F-017/30	Cont of application US 9820047
					Cont of patent US 6216131

Abstract (Basic): US 20010014890 A1

NOVELTY - A set of rules comprising multiple field types which are related with string or substring expressions specifying a field name, are defined and ordered. The data files of received **source data set**, are mapped into data field of destination data set, based on the set of rules. The **source data set** is synchronized with destination data set.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for data processing system.

USE - For mapping data between PC and handheld electronic organizer in data processing system.

ADVANTAGE - The task of mapping fields from one **data set** to **another** is automated entirely by supporting automatic matching of data fields between **different data sets**.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of improved rule based methodology.

pp; 26 DwgNo 5/5

Title Terms: DATA; FIELD; MAP; METHOD; DATA; PROCESS; SYSTEM; DEFINE; SET; RULE; COMPRISE; MULTIPLE; FIELD; TYPE; RELATED; STRING; EXPRESS;

SPECIFIED; FIELD; NAME  
Derwent Class: T01  
International Patent Class (Main): G06F-017/30  
File Segment: EPI

23/5/14 (Item 13 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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014003937 \*\*Image available\*\*  
WPI Acc No: 2001-488151/200153  
Related WPI Acc No: 2003-246304; 2003-254854  
XRPX Acc No: N01-361218

Dynamic distribution method of requests for objects stored in internet server, involves selecting host to respond to object request based on request metric and distance metric values of host  
Patent Assignee: AT & T CORP (AMT)   
Inventor: RABINOVICH M  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applcat No Kind Date Week  
US 6256675 B1 20010703 US 9746999 P 19970506 200153 B  
US 9873439 A 19980506

Priority Applications (No Type Date): US 9746999 P 19970506; US 9873439 A 19980506

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 6256675 B1 21 G06F-015/173 Provisional application US 9746999

Abstract (Basic): US 6256675 B1

NOVELTY - A request metric value for each replica of a request object is determined independently from any input from host to which object request is forwarded. A distance metric value indicating the cost of communicating between the requester and the host, is determined. A host is selected to respond to the object request based on the request metric value and distance metric value of the host.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a request distributor.

USE - For dynamic distribution of objects stored in internet servers.

ADVANTAGE - Reduces network traffic that has to be generated to make a distribution decision and simplifies autonomous replica placement decisions by selecting the host to which object request is forwarded from request distributor.

DESCRIPTION OF DRAWING(S) - The figure shows the method for request distribution.

pp; 21 DwgNo 2/11

Title Terms: DYNAMIC; DISTRIBUTE; METHOD; REQUEST; OBJECT; STORAGE; SERVE; SELECT; HOST; RESPOND; OBJECT; REQUEST; BASED; REQUEST; METRIC; DISTANCE; METRIC; VALUE; HOST

Derwent Class: T01

International Patent Class (Main): G06F-015/173

File Segment: EPI

23/5/15 (Item 14 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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013922600 \*\*Image available\*\*  
WPI Acc No: 2001-406813/200143  
Related WPI Acc No: 2001-601828  
XRPX Acc No: N01-300859

Data field mapping method maps data fields of received source data set to data fields of destination data set without user intervention by determining field type of each source field based on defined rules

**application**

Patent Assignee: STARFISH SOFTWARE INC (STAR-N)

Inventor: BODNAR E O; KAHN P R; LIU G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6216131	B1	20010410	US 9820047	A	19980206	200143 B

Priority Applications (No Type Date): US 9820047 A 19980206

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6216131	B1	21		G06F-017/30	

Abstract (Basic): US 6216131 B1

NOVELTY - Set of rules with field types associated with string or substring expressions are defined and mapping of data fields of received **source data set** is performed to data fields of destination data set without user intervention by determining field type of each source field based on rules application. **Source** and destination **data set** are synchronized, so that data field values of both sets are synchronized mutually.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Data processing system;
- (b) Storage device

USE - For data processing system.

ADVANTAGE - Enables to readily map or translate user information such as user supplied contact lists, from one data set on one device into **another data set** either on the same device or on another device.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating general methodology for mapping data fields from one **data set** to **another** in data processing system.

pp; 21 DwgNo 5/5

Title Terms: DATA; FIELD; MAP; METHOD; MAP; DATA; FIELD; RECEIVE; SOURCE; DATA; SET; DATA; FIELD; DESTINATION; DATA; SET; USER; INTERVENING; DETERMINE; FIELD; TYPE; SOURCE; FIELD; BASED; DEFINE; RULE; APPLY

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

23/5/16 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013259796 \*\*Image available\*\*

WPI Acc No: 2000-431679/200037

XRPX Acc No: N00-322113

Selection arrangement for data set in end unit having processor - with choice of selectable data sets displayed along linear scale with slider to position at selected item

Patent Assignee: SIEMENS AG (SIEI )

Inventor: HOHL H

Number of Countries: 019 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200036496	A1	20000622	WO 99DE3848	A	19991201	200037 B

Priority Applications (No Type Date): DE 1058094 A 19981216

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200036496	A1	G	36	G06F-003/033	

Designated States (National): US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE

Abstract (Basic): WO 200036496 A

The selection device is a slider moved to select one of a set of linear arranged data sets. The slider has two direction symbols (101,102) with an adjustable area (103), a slider (104) and a scale (105). A number of linear arranged data sets is mapped along the scale at specific numerical values, the **first data set** at the minimum value and the last data set at the maximum value of the slider. The **different data sets** are selected by sliding the slider.

Text or graphic representations are used along the scale. The slider is moved using a freely positionable indicator e.g. a pen on a touch sensitive input and/or with a cursor button control. Incremental positioning is achieved by selecting one of the two direction symbols.

**USE** - For telephone, personal digital assistant, hand held computer, web phone, online access terminals having small sized display and graphical user interface to display list of names, list of customers, chronological arranged data sets of appointments.

**ADVANTAGE** - Provides overview of selection, no need to switch from selection mode to view mode, takes little space.

Dwg.1/10

Title Terms: SELECT; ARRANGE; DATA; SET; END; UNIT; PROCESSOR; CHOICE; SELECT; DATA; SET; DISPLAY; LINEAR; SCALE; SLIDE; POSITION; SELECT; ITEM  
Derwent Class: T01; T04; W01  
International Patent Class (Main): G06F-003/033  
File Segment: EPI

23/5/17 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX  
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013204814 \*\*Image available\*\*

WPI Acc No: 2000-376687/200032

XRPX Acc No: N00-282804

**Latency reduction facilitation in messaging system, involves determining distance between current and additional items compatible with messaging unit**

Patent Assignee: MOTOROLA INC (MOTI )

Inventor: DORENBOSCH J P

Number of Countries: 083 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200028423	A1	20000518	WO 99US22713	A	19990930	200032 B
AU 9961676	A	20000529	AU 9961676	A	19990930	200041
EP 1129411	A1	20010905	EP 99948512	A	19990930	200151
			WO 99US22713	A	19990930	

Priority Applications (No Type Date): US 98189072 A 19981109

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200028423 A1 E 22 G06F-013/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 9961676 A G06F-013/00 Based on patent WO 200028423

EP 1129411 A1 E G06F-013/00 Based on patent WO 200028423

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Abstract (Basic): WO 200028423 A1

**NOVELTY** - A **distance metric** represents distance between information items, distance threshold for a messaging unit (MU) (122). The MU selects a current information item from a controller (112) of messaging system. Distance between current and additional items compatible with MU, are determined. Additional item is stored in memory of MU, when distance between current and additional items is less than

a threshold.

DETAILED DESCRIPTION - When the additional item is requested by the user, it retrieves from memory by the MU for immediate presentation to the user.

USE - In messaging system used in communication system for finding an item in catalog for determining location of restaurant or for checking value of stock.

ADVANTAGE - Reduces latency by predicting related items of information that uses of messaging unit is likely to need in the future, and by storing the items of information in messaging unit in advance of user's need.

DESCRIPTION OF DRAWING(S) - The figure shows the electrical block diagram of messaging system.

Controller (112)

Messaging unit (122)

pp; 22 DwgNo 1/7

Title Terms: LATENT; REDUCE; FACILITATE; MESSAGING; SYSTEM; DETERMINE; DISTANCE; CURRENT; ADD; ITEM; COMPATIBLE; MESSAGING; UNIT

Derwent Class: T01

International Patent Class (Main): G06F-013/00

File Segment: EPI

23/5/20 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012965594 \*\*Image available\*\*

WPI Acc No: 2000-137445/200012

XRPX Acc No: N00-102749

Search algorithm in search system used for retrieving text information in world wide web

Patent Assignee: FAST SEARCH & TRANSFER ASA (FAST-N)

Inventor: RISVIK K M

Number of Countries: 087 Number of Patents: 016

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200003315	A2	20000120	WO 99NO233	A	19990709	200012 B
NO 9803175	A	20000111	NO 983175	A	19980710	200014
NO 9903413	A	20000111	NO 993413	A	19990709	200014
AU 9949370	A	20000201	AU 9949370	A	19990709	200028
EP 1095326	A1	20010502	EP 99933296	A	19990709	200125
			WO 99NO233	A	19990709	
BR 9912015	A	20010410	BR 9912015	A	19990709	200128
			WO 99NO233	A	19990709	
CZ 200100064	A3	20010711	WO 99NO233	A	19990709	200147
			CZ 200164	A	19990709	
NO 311657	B1	20011227	NO 993413	A	19990709	200206
CN 1317114	A	20011010	CN 99810507	A	19990709	200207
KR 2001071841	A	20010731	KR 2001700436	A	20010110	200208
EP 1095326	B1	20020130	EP 99933296	A	19990709	200209
			WO 99NO233	A	19990709	
DE 69900854	E	20020314	DE 600854	A	19990709	200226
			EP 99933296	A	19990709	
			WO 99NO233	A	19990709	
US 6377945	B1	20020423	WO 99NO233	A	19990709	200232
			US 2000486726	A	20000309	
JP 2002520712	W	20020709	WO 99NO233	A	19990709	200259
			JP 2000559494	A	19990709	
HU 200201630	B	20020828	WO 99NO233	A	19990709	200264
			HU 20021630	A	19990709	
ES 2173752	T3	20021016	EP 99933296	A	19990709	200279

Priority Applications (No Type Date): NO 983175 A 19980710

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
WO 200003315 A2 E 31 G06F-000/00

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

NO 9903413 A G06F-000/00

AU 9949370 A G06F-000/00 Based on patent WO 200003315

EP 1095326 A1 E G06F-001/00 Based on patent WO 200003315

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

BR 9912015 A G06F-017/30 Based on patent WO 200003315

CZ 200100064 A3 G06F-017/30 Based on patent WO 200003315

NO 311657 B1 G06F-017/30 Previous Publ. patent NO 9903413

CN 1317114 A G06F-017/30

KR 2001071841 A G06F-017/30

EP 1095326 B1 E G06F-001/00 Based on patent WO 200003315

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 69900854 E G06F-001/00 Based on patent EP 1095326

Based on patent WO 200003315

US 6377945 B1 G06F-017/30 Based on patent WO 200003315

JP 2002520712 W 74 G06F-017/30 Based on patent WO 200003315

HU 200201630 B G06F-017/30 Based on patent WO 200003315

ES 2173752 T3 G06F-001/00 Based on patent EP 1095326

Abstract (Basic): WO 200003315 A2

NOVELTY - Two algorithms determine degree of matching between words in a suffix tree ST(T) of the text T and query Q, and between the sequences of words. The algorithms search the data structure with queries Q in the form of words, sequences of words or sequences of symbols or combinations, so that information R is retrieved on the basis of query with specified degree of matching between the words and word sequences.

DETAILED DESCRIPTION - The information retrieval takes place with a given or varying degree of matching between query Q and retrieved information R. A data structure stores text T, metric M which measures the degree of matching between query and retrieved information. A search algorithm executes full text search, based on keywords. The tree structure in the form of suffix tree ST(T) which stores the suffixes of words, word sequences and symbol sequences in a text T and the metric having combination of edit **distance metric** for matching between words or symbols in the text and the query, and between sequences S of words and symbols and the query sequence P. One of the edit metric has weighting cost functions for edit operations, for transforming sequence S to sequence P. An INDEPENDENT CLAIM is also included for text information retrieval method.

USE - In search system for text information retrieval. Also used to search documents in world wide web (WWW).

ADVANTAGE - Fast and efficient search and retrieval of information in large volume of data is enabled. Can be applied to searching and retrieving information stored in the form of digitalized images and graphic symbols.

DESCRIPTION OF DRAWING(S) - The figure shows schematic structure of search engine with search system.

PP; 31 DwgNo 7/7

Title Terms: SEARCH; ALGORITHM; SEARCH; SYSTEM; RETRIEVAL; TEXT; INFORMATION; WORLD; WIDE; WEB

Derwent Class: T01

International Patent Class (Main): G06F-000/00 ; G06F-001/00 ; G06F-017/30

International Patent Class (Additional): H04L-000/00

File Segment: EPI

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012116244 \*\*Image available\*\*

WPI Acc No: 1998-533156/199846

Related WPI Acc No: 1998-334560; 1998-533101; 1999-097147

XRPX Acc No: N98-415951

Virtual user system for reception and storage of internet information -  
has received information held in reception containers before transfer to  
user tables with combining of user table data sets to provide virtual  
user system.

Patent Assignee: SCHALL R (SCHA-I)

Inventor: SCHALL R

Number of Countries: 023 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19814472	A1	19981008	DE 1014472	A	19980328	199846 B
WO 9927679	A2	19990603	WO 98DE3284	A	19981110	199929

Priority Applications (No Type Date): DE 1014472 A 19980328; DE 1051701 A  
19971121; DE 1004319 A 19980204; DE 1028334 A 19980625

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19814472	A1	22		G06F-003/00	Add to patent DE 19751701
WO 9927679	A2	G		H04L-012/00	

Designated States (National): CA JP NO RU US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE

Abstract (Basic): DE 19814472 A

The virtual user system has a number of user tables (1) storing data sets, each representing a real object and associated with a **main** key, the **data sets** in **different** user tables combined to provide a tree or network structure virtual user system. New information received from the internet is stored in reception containers (3), with subsequent transfer to the user tables via data filters (4).

USE - For client/server technology.

ADVANTAGE - Reduced loading of computer system upon reception of information for increased processing efficiency.

Dwg.1/8

Title Terms: VIRTUAL; USER; SYSTEM; RECEPTION; STORAGE; INFORMATION;  
RECEIVE; INFORMATION; HELD; RECEPTION; CONTAINER; TRANSFER; USER; TABLE;  
COMBINATION; USER; TABLE; DATA; SET; VIRTUAL; USER; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-003/00 ; H04L-012/00

International Patent Class (Additional): G06F-015/00

File Segment: EPI

23/5/24 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011981670 \*\*Image available\*\*

WPI Acc No: 1998-398580/199834

XRPX Acc No: N98-310137

Digital computing system operating method to store data using multiple data memories - involves selecting data set from received multiple data set after storing first data set and is then processed and stored in particular memory, which is selected using predetermined criteria

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: BLEA D R; KERN R M; MCBRIDE G E; SHACKELFORD D M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5778393	A	19980707	US 96650606	A	19960520	199834 B

Priority Applications (No Type Date): US 96650606 A 19960520

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 5778393 A 11 G06F-017/30

Abstract (Basic): US 5778393 A

The method involves receiving multiple data sets sequentially in order. The **first** data set is processed, based on which a particular memory is stored, that satisfies the data set storage requests. Then, the processed data set is stored in the chosen memory.

The next data set is processed, sequentially using sequence processing steps, which are initiated immediately after processing the **first** data set. **Another** memory is selected by using predetermined criteria to satisfy data storage requests. Then, the processed data set is stored in the selected data set.

ADVANTAGE - Improves efficiency of computer system. Maximizes parallel processing speed and minimizes data load.

Dwg.3/5

Title Terms: DIGITAL; COMPUTATION; SYSTEM; OPERATE; METHOD; STORAGE; DATA; MULTIPLE; DATA; MEMORY; SELECT; DATA; SET; RECEIVE; MULTIPLE; DATA; SET; AFTER; STORAGE; FIRST; DATA; SET; PROCESS; STORAGE; MEMORY; SELECT; PREDETERMINED; CRITERIA

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

23/5/26 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011822729 \*\*Image available\*\*

WPI Acc No: 1998-239639/199821

XRPX Acc No: N98-189584

Method of matching element of groups of data objects - examining successively more abstract projections of groups until exact matches occur or no more projections available

Patent Assignee: TRUSTUS PTY LTD (TRUS-N)

Inventor: WILLIAMS R N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5737594	A	19980407	US 95525281	A	19950705	199821 B

Priority Applications (No Type Date): AU 9466168 A 19940705

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 5737594 A 6 G06F-017/30

Abstract (Basic): US 5737594 A

The method matches elements of two groups of data elements e.g. file specifications. An abstract representation of each group is formed. Each element identical to another element in its own groups is classified as 'unmatched', as is each element identical to an element of the other group already classified as 'matched' or 'unmatched'. Each pair of identical elements, one from either group and not classified as 'matched' or 'unmatched', is classified as 'matched'. The process is repeated until all elements of both groups are classified. Then elements still not classified are classified as 'unmatched'.

The abstraction of file specification data elements involves removing the 'version number' of the file spec. The alphabetic case of the file spec if normalised or any trailing '.' is removed.

Alternatively a **distance metric**, defining closeness as a property inversely related to distance, is used.

USE - Esp. for comparing groups of names of files transferred from computer running one operating system to computer with different operating system.

ADVANTAGE - Correctly pairs elements of two inexact matching groups.

Dwg.1/2

Title Terms: METHOD; MATCH; ELEMENT; GROUP; DATA; OBJECT; SUCCESSION; MORE; ABSTRACT; PROJECT; GROUP; EXACT; MATCH; OCCUR; NO; MORE; PROJECT; AVAILABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

23/5/27 (Item 26 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011659821 \*\*Image available\*\*

WPI Acc No: 1998-076729/199807

XRPX Acc No: N98-061385

Collaborative filtering system using belief network or Bayesian network - using belief network contg user attribute and user preference nodes, and determining preference having greatest likelihood of desired preference by evaluating probabilities of preference nodes given values of attribute nodes

Patent Assignee: MICROSOFT CORP (MICR-N)

Inventor: BREESE J S; CHICKERING D M; HECKERMAN D E; HORVITZ E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5704017	A	19971230	US 96602238	A	19960216	199807 B

Priority Applications (No Type Date): US 96602238 A 19960216

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5704017	A	29		G06F-017/00	

Abstract (Basic): US 5704017 A

The belief system learns a belief network using both prior knowledge obtained from an expert in a given field of decision making and a database containing empirical data obtained from many people. The empirical data contains attributes of users as well as their preferences in the field of decision making. After initially learning the belief network, the belief network is relearned at various intervals when additional attributes are identified as having a causal effect on the preferences and data for these additional attributes can be gathered.

This relearning allows the belief network to improve its accuracy at predicting preferences of a user. Upon each iteration of relearning, a cluster model is automatically generated that best predicts the data in the database. After relearning the belief network a number of times, the belief network is used to predict the preferences of a user using probabilistic inference. In performing probabilistic inference, the known attributes of a user are received and the belief network is accessed to determine the probability of the unknown preferences of the user given the known attributes. Based on these probabilities, the preference most likely to be desired by the user can be predicted.

ADVANTAGE - Prior knowledge from expert in given field of decision making is used to seed clustering, producing clusters which accurately reflect data in database. Number of clusters is determined automatically, which is more reliable than manually predicting and inputting number of clusters. No distance metric is needed to reduce amount of data gathered before system can run. Non-numerical attributes are used to eliminate errors introduced into the system through transposition of non-numerical values into numerical values. Output of system is clustering model that is easily modifiable by administrator so that it can be fed back into system and improved in iteratively, leading to improved accuracy in determining preferences of user.

Title Terms: FILTER; SYSTEM; NETWORK; BAYESIAN; NETWORK; CONTAIN; USER; ATTRIBUTE; USER; PREFER; NODE; DETERMINE; PREFER; GREATER; PREFER; EVALUATE; PROBABILITY; PREFER; NODE; VALUE; ATTRIBUTE; NODE  
 Derwent Class: T01  
 International Patent Class (Main): ~~G06F-017/00~~  
 File Segment: EPI

23/5/28 (Item 27 from file: 350)  
 DIALOG(R) File 350:Derwent WPIX  
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011266772 \*\*Image available\*\*  
 WPI Acc No: 1997-244675/199722

XRPX Acc No: N97-201864

CPU-implemented high-speed on-line logical copy of partitioned data sets from source to target device in storage sub-system - selecting members from source partitioned data set to target partitioned data set, and writing source member names of source members into corresp. unnamed target members in target directory, in single directory mass name I-O operation

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: KINCAID W J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5623669	A	19970422	US 9395632	A	19930721	199722 B
			US 95402754	A	19950310	
			US 96689630	A	19960813	

Priority Applications (No Type Date): US 9395632 A 19930721; US 95402754 A 19950310; US 96689630 A 19960813

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5623669	A	38	G06F-005/00	Cont of application US 9395632	Cont of application US 95402754

Abstract (Basic): US 5623669 A

A source data - set is designated on a first storage device and members are selected for copying. A target data - set is designated on a second storage device. The target data set is either newly created or already exists. If the latter, existing members remain alterable by other system users during copying. All selected source members, or a subset, are opened for input. An equal number of target members are created in the target data set in a single directory write operation. All data records of the selected source members are input to the CPU's virtual storage, and then transferred to the target members via frugal use of data I-O's.

When the selected data records have been transferred, all target members are named using a single directory write operation. Finally, the source and target members are closed. During copying, other system users may browse the selected source members, but the unnamed target members will be invisible to them until copying is complete.

ADVANTAGE - Improves performance over prior logical copy utilities by decreasing number of I-O's required for operation. Efficient compromise between high performance and limited flexibility of physical copy facilities and low performance and high flexibility of logical copy facilities. Increases efficiency of logically copying partitioned data sets having large number of small members.

Dwg.12/25

Title Terms: CPU; IMPLEMENT; HIGH; SPEED; ON-LINE; LOGIC; COPY; PARTITION; DATA; SET; SOURCE; TARGET; DEVICE; STORAGE; SUB; SYSTEM; SELECT; MEMBER; SOURCE; PARTITION; DATA; SET; TARGET; PARTITION; DATA; SET; WRITING; SOURCE; MEMBER; NAME; SOURCE; MEMBER; CORRESPOND; TARGET; MEMBER; TARGET; DIRECTORY; SINGLE; DIRECTORY; MASS; NAME; OPERATE

Derwent Class: T01

International Patent Class (Main): G06F-005/00  
File Segment: EPI

23/5/32 (Item 31 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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010725962 \*\*Image available\*\*  
WPI Acc No: 1996-222917/199623  
XRPX Acc No: N96-187105

Method for loading multi-computer systems - involves loading different data sets from central load control unit through communications network into number of calculating modules.

Patent Assignee: ALCATEL NV (COGE ); ALCATEL SEL AG (COGE )

Inventor: DUMANLI T; LEGAT K

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4438697	A1	19960502	DE 4438697	A	19941029	199623 B
AU 9534287	A	19960509	AU 9534287	A	19951017	199626
AU 702953	B	19990311	AU 9534287	A	19951017	199922

Priority Applications (No Type Date): DE 4438697 A 19941029

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4438697	A1	9		G06F-015/177	
AU 702953	B			G06F-015/16	Previous Publ. patent AU 9534287
AU 9534287	A			G06F-015/16	

Abstract (Basic): DE 4438697 A

The method involves figure shows the calculating modules (M1 to M9) or computers, the loading control unit (LC) and the communications network (KN). The data sets in a first phase, a preparatory loading phase, are arranged into n groups, and each group is passed by the loading control unit to one of n auxiliary loading units (LS1 to LS3), where they are stored. These auxiliary units, in a second phase, the loading phase, distribute simultaneously the stored data over the communications network to the calculating modules, where they are stored.

USE/ADVANTAGE - For multi-computer data processing systems. Time for loading data sets into several computing unit has been reduced to minimum.

Dwg.1/2

Title Terms: METHOD; LOAD; MULTI; COMPUTER; SYSTEM; LOAD; DATA; SET; CENTRAL; LOAD; CONTROL; UNIT; THROUGH; COMMUNICATE; NETWORK; NUMBER; CALCULATE; MODULE

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/16 ; G06F-015/177

International Patent Class (Additional): G06F-013/38 ; G06F-015/173 ; H04Q-003/42; H04Q-003/545

File Segment: EPI

23/5/37 (Item 36 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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009375414 \*\*Image available\*\*  
WPI Acc No: 1993-068892/199309  
XRPX Acc No: N93-052881

Processor for multiprocessor system - includes controller alternatively enabling and disabling transfer of renewal data for updating data set to different memories

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: KAWASE K; MATSUMOTO T; MORIYAMA T

Number of Countries: 007 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 529866	A2	19930303	EP 92307338	A	19920811	199309 B
CA 2073540	A	19930223	CA 2073540	A	19920709	199319
EP 529866	A3	19941207	EP 92307338	A	19920811	199536
US 5522060	A	19960528	US 92933457	A	19920821	199627
			US 94331291	A	19941028	
JP 3057460	B2	20000626	JP 91233749	A	19910822	200035

Priority Applications (No Type Date): JP 91233749 A 19910822

Cited Patents: No-SR.Pub; 3.Jnl.Ref; EP 223557; EP 264726; EP 282711; EP 447146; GB 2217155; JP 59148190; JP 61000992

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 529866	A2	E 17	G06F-015/72	Designated States (Regional): DE FR GB IT
CA 2073540	A		G06F-015/16	
EP 529866	A3		G06F-015/72	
US 5522060	A	16	G06F-013/00	Cont of application US 92933457
JP 3057460	B2	11	G06F-015/16	Previous Publ. patent JP 5054004

Abstract (Basic): EP 529866 A

The processor (22) has a number of memories (30, 31, 32) each for storing a data set. A data path (24) communicates data to the memories. A controller (33) alternatively enables and disables transfer of renewal data for updating the data set from the data path to different ones of the memories. An executive unit (20) reads at least a portion of the data set stored in a disabled one of the memories. Renewal means (34) communicates at least a portion of the data set stored in an enabled one of the memories to the disabled one of the memories in response to the disabled one of the memories being re-enabled by the controller.

ADVANTAGE - Instructions for snap-shots such as drawing instructive primitives are efficiently executed in parallel.

Dwg.2/11

Title Terms: PROCESSOR; MULTIPROCESSOR; SYSTEM; CONTROL; ALTERNATIVE; ENABLE; DISABLE; TRANSFER; RENEW; DATA; UPDATE; DATA; SET; MEMORY

Derwent Class: T01

International Patent Class (Main): G06F-013/00 ; G06F-015/16 ; G06F-015/72

International Patent Class (Additional): G06F-003/14 ; G06F-012/02 ; G06F-013/14 ; G06F-013/18

File Segment: EPI

23/5/39 (Item 38 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009196220 \*\*Image available\*\*

WPI Acc No: 1992-323657/199239

XRPX Acc No: N92-247534

Communication network data manager system - reads data directly from source data set, which may be on tape or disk, and writes directly to target data set which may also be on tape or disk

Patent Assignee: SEARS COMMUNICATIONS NETWORK INC (SEAR-N)

Inventor: CAREY P J; CHIENG D; EDGAR J L; IMBURGIA T R; MCHUGH D C; TAM L P ; WILLIAMSON M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5146561	A	19920908	US 88203874	A	19880602	199239 B

Priority Applications (No Type Date): US 88203874 A 19880602

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5146561	A	30	G06F-015/16	

Abstract (Basic): US 5146561 A

In the system each of the CPU command processors comprises a device operatively associated with the command generator for receiving commands therefrom. A CPU system for which each the command is selected to be implemented by is determined.

A device operatively associated with the determining device transmits each command to the CPU system's command processor, or alternatively, to another of the CPU system's command processor, according to the selected CPU system which is to implement the command as determined by the determining device.

USE/ADVANTAGE - Communication network data manager. Does not require any intermediate storage for queuing or spoking data being transferred.

Title Terms: COMMUNICATE; NETWORK; DATA; MANAGE; SYSTEM; READ; DATA; SOURCE ; DATA; SET; TAPE; DISC; WRITING; TARGET; DATA; SET; TAPE; DISC

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-013/00 ; G06F-015/40

File Segment: EPI

Set	Items	Description
S1	696109	NAVIGAT? OR GUID? OR MANEUVER? OR MOVE?
S2	1102939	STRUCTURE? OR FORMATION? OR ARRANGEMENT? OR CONFIGURATION? OR ORGANIZATION
S3	66361	(DISSIMILAR? OR UNLIKE? OR UNIQUE OR DIFFERENT OR UNLIKE OR DISPARATE) (2N) S2
S4	2314	(SOURCE OR ORIGIN? OR BEGIN? OR ROOT? OR FIRST OR 1ST OR P- RIME OR PRIMARY OR INITIAL OR LEADING OR MAIN OR DOMINANT OR - CARDINAL OR ORIGINAL) (2N) (DATASET? OR DATA() (SET? OR COLLECTI- ON?))
S5	1277	(TARGET OR DIFFERENT OR ANOTHER OR SEPARATE) (2N) (DATASET? - OR DATA() (SET? OR COLLECTION?))
S6	25896	DATASET? OR DATA() (SET? OR COLLECTION?)
S7	116466	(CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP?) (2N) (I- NFORMATION OR FACT? OR KNOWLEDGE)
S8	303876	"NOT"() (FOUND OR PRESENT) OR ABSENT OR ABSENCE OR LACKING - OR MISSING OR WANTING
S9	1357342	TARGET OR DIFFERENT OR ANOTHER OR SEPARATE
S10	1191288	COMPUTE? OR CALCULATE OR FIGURE? OR FIGURING OR MEASUR? OR MODEL???
S11	499	DISTANCE()METRIC?
S12	143	S4 (S) S5
S13	0	S12 (S) S11
S14	16	S4 (S) S7 (S) S8 (S) S9
S15	208621	S1 (S) S2
S16	4	S15 (S) S12
S17	0	S12 (S) S11
S18	6	S12 (S) S3
S19	22	S12 (S) S1
S20	35	S14 OR S16 OR S18 OR S19
S21	25	S20 AND IC=G06F?

File 348:EUROPEAN PATENTS 1978-2003/Sep W04

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File 349:PCT FULLTEXT 1979-2002/UB=20031002,UT=20030925

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on a user terminal. The target table may be located in the same data base as the source table or in an auxiliary data base connectable and disconnectable to and from the main data base. A production control dialog (70) is used for data source and data base identification and modification purpose.

The data base processor is preferably used as a Service Level Reporter (SLR) including a main data base for actual data and an auxiliary data base for forecasting data.

ABSTRACT WORD COUNT: 172

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 871111 A1 Published application (A1with Search Report  
;A2without Search Report)

Examination: 880420 A1 Date of filing of request for examination:  
880224

Change: 880727 A1 Representative (change)

Examination: 890830 A1 Date of despatch of first examination report:  
890713

Change: 900307 A1 Representative (change)

Grant: 920129 B1 Granted patent

Oppn None: 930120 B1 No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS B	(English)	EPBBF1	1070
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CLAIMS B	(German)	EPBBF1	920
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CLAIMS B	(French)	EPBBF1	1382
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SPEC B	(English)	EPBBF1	6441
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Total word count - document A

Total word count - document B

Total word count - documents A + B

INTERNATIONAL PATENT CLASS: G06F-013/14 ...

... G06F-015/16 ...

... G06F-015/40

...SPECIFICATION up default target row.

This row has all columns containing missing values.

105. Read a row from the source table .

106 . Initialize target row from default row.

107. Transform source row to target format.

Uses the above transformation with input...

...between start and end key Found out by stepping up the lowest time key.

124. Initialize a first possible row.

The row has the lowest possible time key and all data columns set to missing.

125. Write the row...

21/5,K/7 (Item 7 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00237743

Method for restarting a long-running, fault-tolerant operation in a transaction-oriented data base system.

Verfahren zum Wiederanlauf einer langlaufenden fehlertoleranten Operation in einem transaktionsorientierten Datenbasissystem.

Methode de redemarrage d'une operation a long deroulement, tolerant les fautes dans un systeme de base de donnees transactionnel.

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB;IT)

INVENTOR:

Reinsch, Roger Alan, 20663 Greenleaf Drive, Cupertino, CA 95014, (US)  
Zimowski, Melvin Richard, 6676 Copperwood Circle, San Jose, CA 95120,  
(US)

LEGAL REPRESENTATIVE:

Burt, Roger James, Dr. (52152), IBM United Kingdom Limited Intellectual  
Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)  
PATENT (CC, No, Kind, Date): EP 236743 A2 870916 (Basic)  
EP 236743 A3 890927  
EP 236743 B1 931215

APPLICATION (CC, No, Date): EP 87101585 870205;

PRIORITY (CC, No, Date): US 835396 860303

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: G06F-011/14

CITED PATENTS (EP A): US 3564506 A

CITED REFERENCES (EP A):

PROCEEDINGS OF DISTRIBUTED COMPUTING, FALL COMPCON'80, 21st IEEE computer  
society international conference, Washington, DC, 23rd-25th September  
1980, pages 433-441, IEEE, New York, US; W.H. KOHLER: "Overview of  
synchronization and recovery problems in distributed databases"  
PATENT ABSTRACTS OF JAPAN, vol. 8, no. 229 (E-273) 1666 , 20th October  
1984; & JP-A-59 108 441 (NIPPON DENKI K.K.) 22-06-1984;

ABSTRACT EP 236743 A2

A restartable load without logging method permits the restart of a LOAD  
operation from the last COMMIT point without requiring the writing of  
images of loaded records to the log. Instead, the method logs only a  
minimal amount of information, recording positions within the data sets  
to be loaded and within the tablespace being loaded.

ABSTRACT WORD COUNT: 59

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 870916 A2 Published application (Alwith Search Report  
;A2without Search Report)

Examination: 880330 A2 Date of filing of request for examination:  
880126

Change: 880810 A2 Representative (change)

Search Report: 890927 A3 Separate publication of the European or  
International search report

Examination: 910529 A2 Date of despatch of first examination report:  
910412

Change: 911009 A2 Representative (change)

Change: 911204 A2 Representative (change)

Grant: 931215 B1 Granted patent

Oppn None: 941207 B1 No opposition filed

Lapse: 991020 B1 Date of lapse of European Patent in a  
contracting state (Country, date): IT  
19931215,

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	376
CLAIMS B	(German)	EPBBF1	322
CLAIMS B	(French)	EPBBF1	404
SPEC B	(English)	EPBBF1	4940

Total word count - document A 0

Total word count - document B 6042

Total word count - documents A + B 6042

INTERNATIONAL PATENT CLASS: G06F-011/14

...SPECIFICATION containing sequential input data sets, and a second  
address space containing a relational tablespace. A LOAD operation **moves**  
the data sets from the **first** into the **second** address space by  
way of a series of non-overlapping transactions. In this **regard**, the  
LOAD operation does not employ either before or after images in the log  
for any data set being loaded...

Examination: 901212 A2 Date of despatch of first examination report:  
901026  
Grant: 920701 B1 Granted patent  
Change: 930324 B1 Representative (change)  
Oppn None: 930623 B1 No opposition filed  
Lapse: 991020 B1 Date of lapse of European Patent in a  
contracting state (Country, date): IT  
19920701

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	472
CLAIMS B	(German)	EPBBF1	477
CLAIMS B	(French)	EPBBF1	560
SPEC B	(English)	EPBBF1	9170
Total word count - document A			0
Total word count - document B			10679
Total word count - documents A + B			10679

INTERNATIONAL PATENT CLASS: G06F-011/20

...SPECIFICATION release:

An IMS Message Format Service (MFS) terminal format block represents a predefined message format that is moved into the MFS buffer pool as needed. Message Format Services are described in IBM publication SH20-9053, "IMS/VS Message Format Service User's Guide".

Based upon the Queue Manager Enqueue log records ('X'35') and Communication Get Unique log records (X...).

...area data sets. A preallocation or preopen failure during the Tracking Phase is not considered an error. Rather, another attempt is made when the data base/area is needed after takeover.

The initial SNAPQ Checkpoint's...

21/5,K/9 (Item 9 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00204733

A method for moving VSAM base clusters while maintaining alternate indices into the cluster.

Verfahren zum Transfer von VSAM-Gruppen mit Instandhaltung von Ersatzindexen in der Gruppe.

Procede de transfert de groupes VSAM en gardant des indices remplaçants dans le groupe.

PATENT ASSIGNEE:

International Business Machines Corporation, (200120), Old Orchard Road, Armonk, N.Y. 10504, (US), (applicant designated states: DE;FR;GB)

INVENTOR:

Ferro, John T., Jr., 6411 Rizal Court, San Jose CA 95119, (US)

Jacobs, Patrick C., 1107 Virgil Place, San Jose CA 95120, (US)

Laye, Robert M.-L., 3475 La Mesa Drive, Hayward CA 94542, (US)

Starr, Brian D., 1105 Easy Street, Morgan Hill CA 95037, (US)

LEGAL REPRESENTATIVE:

Blakemore, Frederick Norman (28381), IBM United Kingdom Limited

Intellectual Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 210466 A2 870204 (Basic)

EP 210466 A3 910710

APPLICATION (CC, No, Date): EP 86109128 860704;

PRIORITY (CC, No, Date): US 761739 850801

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-015/40

CITED PATENTS (EP A): EP 132586 A

CITED REFERENCES (EP A):

IBM TECHNICAL DISCLOSURE BULLETIN, vol. 24, no. 7B, December 1981, pages

3660-3661, New York, US; H.E. KAMIONKA: "Accessing migrated data sets"  
IBM TECHNICAL DISCLOSURE BULLETIN, vol. 24, no. 1B, June 1981, pages  
795-797, New York, US; R.L. COOK et al.: "Relative addressing of data  
sets"  
IBM TECHNICAL DISCLOSURE BULLETIN, vol. 21, no. 9, February 1979, pages  
3798-3800, New York, US; J.M. GIBBARD et al.: "Efficient storage space  
utilization";

#### ABSTRACT EP 210466 A2

A VSAM data set is moved to another DASD volume in less time than that required by logical processing by invoking a DASD track-oriented process extrinsic to VSAM which can select and order the transfer of VSAM components to a newly created VSAM cluster.

ABSTRACT WORD COUNT: 48

#### LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 870204 A2 Published application (A1with Search Report  
;A2without Search Report)  
Examination: 870819 A2 Date of filing of request for examination:  
870623  
Change: 880810 A2 Representative (change)  
Search Report: 910710 A3 Separate publication of the European or  
International search report  
Examination: 920527 A2 Date of despatch of first examination report:  
920415  
Change: 920715 A2 Representative (change)  
Withdrawal: 930804 A2 Date on which the European patent application  
was deemed to be withdrawn: 930202

LANGUAGE (Publication, Procedural, Application): English; English; English

#### FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	391
SPEC A	(English)	EPABF1	1484
Total word count - document A			1875
Total word count - document B			0
Total word count - documents A + B			1875

INTERNATIONAL PATENT CLASS: G06F-015/40

...SPECIFICATION table of contents (VTOC) relating VSAM component names to volume addresses.

In the past, in order to **move** a VSAM base cluster from a source to a target DASD volume, it has been necessary to define the entire VSAM data set **structure** prior to initiating the **move**. This involves changes to VTOC's, catalog entries, and VVDS's. The **source data set** must now be opened and each logical record extracted one at a time and inserted into the **target data set**. As part of the insertion into the **target data set** operation, it is necessary to recognize any keyed fields and execute appropriate insertions into the indices, thereby rebuilding them. At the completion of this process for all of the records, the **original source data set** must be erased. Consequently, it is necessary to rebuild the entire data set and catalog, thus incurring...

21/5,K/23 (Item 14 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.  
  
00488451 \*\*Image available\*\*  
INTEGRATED CUSTOMER INTERFACE FOR WEB BASED COMMUNICATIONS NETWORK  
MANAGEMENT  
INTERFACE CLIENT INTEGREE POUR LA GESTION DE RESEAUX DE COMMUNICATIONS  
BASES SUR LE WEB  
Patent Applicant/Assignee:  
BARRY B Reilly,  
CHODORONEK Mark A,  
DEROSE Eric,  
GONZALES Mark N,  
JAMES Angela R,

apart we had a key word that was  
not found  
If occ1 = 0 Or occ2 = 0 Then if we allow the routine to  
I we had a key word that was return with a 0 result  
not found occ1 = 0 ' must reset it in  
I we allow the routine to case it was occ2...ShowNumberScreens (element  
As & NameElem1  
String, occ As Long) Case "III  
I ShowElem is &  
'this routine is different from Show parameter & " word apart from  
Number Found only in that Result = "(" &  
I it displays a different message to the NameElem2 & " " & ShowElem &  
user & NameElem1 &  
Dim s As String I  
I Case Else  
I...  
...add other parameterized operators  
the search", MB-ICONSTOP, "Failed in the future, I simply must  
Search" ' add another Case option  
frmMainSearch.ListOfMatches.Clear I  
frmMainSearch.ListOfMatches.Addlte Select Case Op  
m "No matches found" Case...

21/5, K/25 (Item 16 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00174288 \*\*Image available\*\*  
COMPUTER SYSTEM MEMORY PERFORMANCE IMPROVEMENT APPARATUS  
APPAREIL AMELIORANT LES PERFORMANCES DE MEMOIRE D'UN SYSTEME INFORMATIQUE  
Patent Applicant/Assignee:  
STORAGE TECHNOLOGY CORPORATION,  
Inventor(s):  
WARR Roger Francis,  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 9007746 A1 19900712  
Application: WO 89US5709 19891220 (PCT/WO US8905709)  
Priority Application: US 88626 19881229  
Designated States: AT AU BE CH DE ES FR GB IT JP LU NL SE  
Main International Patent Class: G06F-012/02  
International Patent Class: G06F-12:08  
Publication Language: English  
Fulltext Availability:  
Detailed Description  
Claims  
Fulltext Word Count: 15465

#### English Abstract

The subject apparatus includes a number of data bases which are used by the expert system software (103) to manage the computer system (101) data storage devices (160, 180). One element provided in this apparatus is a set of data storage device configuration data (171) that provides a description of the various data storage devices (160, 180) and their interconnection in the computer system. A second element is a knowledge data base (108) that includes a set of functional rules that describe the data storage device management function. These rules indicate the operational characteristics of the various data storage devices (160, 180) and the steps that need to be taken to provide the various improvement functions required of the computer system memory (160, 180).

#### French Abstract

L'appareil de l'invention concerne un certain nombre de bases de données utilisées par le logiciel (103) du système expert pour gérer les dispositifs (106, 180) de stockage de données du système informatique (101). Un élément équipant cet appareil est un ensemble de données (171)

de configuration du dispositif de stockage de donnees fournissant une description des divers dispositifs (160, 180) de stockage de donnees. Un second element est une base de donnees (108) de connaissances comportant un ensemble de regles fonctionnelles decrivant la fonction de gestion du dispositif de stockage de donnees. Ces regles indiquent les caracteristiques des divers dispositifs (160, 180) de stockage de donnees ainsi que les demarches a entreprendre afin d'assurer les differentes fonctions d'amelioration necessaires a la memoire (160, 180) du systeme informatique.

Main International Patent Class: G06F-012/02

International Patent Class: G06F-12:08

Fulltext Availability:

Detailed Description

Detailed Description

... data

set can be expressed as the rules shown below,

(1)

if 1, we are willing to **move** the good data set and

2, the data set is not immovable

then

**move** the data set

(2)

if 1. we are willing to **move** the good data set and

2e the data set is immovable and

3\* the data set has sufficient activity

then

**move** the data set

Data Set Placement

The data set placement routine 316 is used to decide where to place data sets that have been identified for **movement**. It attempts to recommend placement of a data set on the least active volume of the same...

...volumes on which the data set

will fit, the data set placement routine 316 tries to find **another data set** on a matching volume that, when **moved** to another matching volume, frees enough space for the **original data set**. As a last resort the data set placement routine 316 considers moving the **data set** to **another** conflict volume for processing at a later date when hopefully it is easier to place.

When a...

Set	Items	Description
S1	14266	NAVIGAT? OR GUID? OR MANEUVER? OR MOVE?
S2	12927	STRUCTURE? OR FORMATION? OR ARRANGEMENT? OR CONFIGURATION? OR ORGANIZATION
S3	116	(DISSIMILAR? OR UNLIKE? OR UNIQUE OR DIFFERENT OR UNLIKE OR DISPARATE) (2N) S2
S4	26913	SOURCE OR ORIGIN? OR BEGIN? OR ROOT? OR FIRST OR 1ST OR P- RIME OR PRIMARY OR INITIAL OR LEADING OR MAIN OR DOMINANT OR - CARDINAL OR ORIGINAL
S5	858	DATA(2N) S2
S6	1282	DATASET? OR DATA() (SET? OR COLLECTION?)
S7	1457	(CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP?) (2N) (I- NFORMATION OR FACT? OR KNOWLEDGE)
S8	1695	"NOT"() (FOUND OR PRESENT) OR ABSENT OR ABSENCE OR LACKING - OR MISSING OR WANTING
S9	18823	TARGET OR DIFFERENT OR ANOTHER OR SEPARATE
S10	34079	COMPUTE? OR CALCULATE OR FIGURE? OR FIGURING OR MEASUR? OR MODEL???
S11	1	DISTANCE() METRIC?
S12	306	S4 AND S6
S13	220	S6 AND S9
S14	0	S11 AND S12 AND S13
S15	244	S5 AND S4
S16	186	S5 AND S9
S17	0	S15 AND S16 AND S11
S18	62	S15 AND S16
S19	62	S12 AND S13
S20	123	S18 OR S19
S21	2	S20 AND S3
S22	18	S20 AND S1
S23	9	S22 NOT PY>1999
S24	9	S23 NOT PD>19990402

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Sep

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Set Items Description  
S1 978912 NAVIGAT? OR GUID? OR MANEUVER? OR MOVE?  
S2 4612542 STRUCTURE? OR FORMATION? OR ARRANGEMENT? OR CONFIGURATION?  
OR ORGANIZATION  
S3 69470 (DISSIMILAR? OR UNLIKE? OR UNIQUE OR DIFFERENT OR UNLIKE OR  
DISPARATE) (2N) S2  
S4 4713389 SOURCE OR ORIGIN? OR BEGIN? OR ROOT? OR FIRST OR 1ST OR P-  
RIME OR PRIMARY OR INITIAL OR LEADING OR MAIN OR DOMINANT OR -  
CARDINAL OR ORIGINAL  
S5 105390 DATA(2N) S2  
S6 125800 DATASET? OR DATA() (SET? OR COLLECTION?)  
S7 63125 (CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP?) (2N) (I-  
NFORMATION OR FACT? OR KNOWLEDGE)  
S8 258173 "NOT" () (FOUND OR PRESENT) OR ABSENT OR ABSENCE OR LACKING -  
OR MISSING OR WANTING  
S9 2605456 TARGET OR DIFFERENT OR ANOTHER OR SEPARATE  
S10 9345134 COMPUTE? OR CALCULATE OR FIGURE? OR FIGURING OR MEASUR? OR  
MODEL???  
S11 1042 DISTANCE() METRIC?  
S12 3508 S4 (2N) S6  
S13 3188 S6 (2N) S9  
S14 0 S11 AND S12 AND S13  
S15 26038 S5 AND S4  
S16 16527 S5 AND S9  
S17 4 S15 AND S16 AND S11  
S18 5464 S15 AND S16  
S19 104 S12 AND S13  
S20 5561 S18 OR S19  
S21 349 S20 AND S3  
S22 21 S21 AND S1  
S23 15 S22 NOT PY>1999  
S24 15 S23 NOT PD>19990402  
S25 14 RD (unique items)  
File 8:Ei Compendex(R) 1970-2003/Sep W4  
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(c) 2003 The HW Wilson Co.  
File 95:TEME-Technology & Management 1989-2003/Sep W3  
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25/5/1 (Item 1 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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05541591 E.I. No: EIP00045147367

Title: Component-based open hypermedia approach to integrating structure services

Author: Nurnberg, Peter J.; Gronbaek, Kaj; Bucka-Lassen, Dirk; Pedersen, Claus Aagaard; Reinert, Olav

Corporate Source: Aarhus Univ, Aarhus, Den

Source: New Review of Hypermedia and Multimedia v 5 1999. p 179-205

Publication Year: 1999

CODEN: NRHMFY ISSN: 1361-4568

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 0006W2

Abstract: In this paper, we consider the issue of integrating **different structure** services within a component-based open hypermedia system. We do so by considering the task of collaborative editing, which calls for a variety of **different structures** traditionally supplied by **different structure** services. We discuss the nature of collaborative editing and how it can be supported by a combination of spatial and **navigational** hypermedia services. We then present a component-based open hypermedia system architecture and describe various methods of integrating **different structure** services provided within such an architecture. We show the advantages of integration within a component-based framework over other means of integration, highlighting some of the **main** advantages of the component-based approach to open hypermedia system design and implementation. (Author abstract) 33 Refs.

Descriptors: Hypermedia systems; Open systems; **Data structures** ; Computer supported cooperative work; Computer architecture

Identifiers: Open hypermedia system; Structure services; Collaborative editing

Classification Codes:

723.5 (Computer Applications); 722.4 (Digital Computers & Systems);

723.2 (Data Processing)

723 (Computer Software); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING)

25/5/2 (Item 2 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)  
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04329282 E.I. No: EIP95112923051

Title: Hypertext and hypermedia for the production and utilization of interactive and distributed documents

Author: Guidon, Jacques; Pierre, Samuel

Corporate Source: Universite Paris, Paris, Fr

Source: Telematics and Informatics v 12 n 2 Spring 1995. p 111-123

Publication Year: 1995

CODEN: TEINEG ISSN: 0736-5853

Language: English

Document Type: JA; (Journal Article) Treatment: A; (Applications)

Journal Announcement: 9603W3

Abstract: The convergence of **different** fields, regrouping computer networks, multimedia, hypertext and new powerful software interfaces, bring some new approaches in producing, cataloging and accessing electronic documents. First we can see new kinds of documents, combining text, images and sounds, with a non-sequential **organization**, shared between **different** users, distributed on **different** computers. These documents can be permanently changed, depending on new ideas of the authors, and/or new comments from the readers. In fact these new documents are 'active'. The hypertext organization bring also the possibility to read the document or **navigate** within its content in **another** way. These new concepts will change the ways to 'read,' 'write' and 'publish' documents for the coming generation. (Author abstract) 7 Refs.

Descriptors: Information technology; Interactive computer systems; Distributed database systems; Information retrieval; Computer networks; User interfaces; Data structures; Computer software

Identifiers: Hypertext; Hypermedia; Distributed documents; Multimedia interfaces; Electronic documents

Classification Codes:

722.4 (Digital Computers & Systems); 723.3 (Database Systems); 903.3 (Information Retrieval & Use); 722.3 (Data Communication, Equipment & Techniques); 722.2 (Computer Peripheral Equipment)

903 (Information Science); 722 (Computer Hardware); 723 (Computer Software)

90 (GENERAL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

25/5/3 (Item 3 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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04164008 E.I. No: EIP95052706664

Title: Air data prediction from surface pressure measurements on guided munitions

Author: Anderson, M.B.; Lawrence, W.R.; Lopez, J.L.

Corporate Source: Sverdrup Technology, Inc, Eglin Air Force Base, FL, USA

Source: Journal of Guidance, Control, and Dynamics v 18 n 2 Mar-Apr 1995.

p 355-360

Publication Year: 1995

CODEN: JGCODS ISSN: 0731-5090

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 9507W3

Abstract: The control of guided munitions over wide ranges of flight conditions has posed new requirements for estimating air data parameters. A common approach to meet the control stability margins and time response requirements is varying autopilot gains as a function of estimated air data parameters. A feasibility study to estimate air data parameters using flush-orifice pressure sensors has been completed. Wind-tunnel measurements of static pressure on sensors mounted on a representative missile nose were used. The primary objective of this study was to explore options for in-flight estimation of air data parameters using only the static pressure data base. The air data parameters of interest include Mach number, angle of attack, aerodynamic roll angle, and freestream pressure. An iterative process based on the differential corrections method was used to determine the air data parameters and expected error in the final estimates. Examples are given that provide sensitivity to pressure measurement noise and different sensor configurations. The air data estimates obtained with this method are suitable for autopilot gain scheduling over a wide range of flight conditions. (Author abstract) 8 Refs.

Descriptors: \*Parameter estimation; Pressure measurement; Ordnance; Control; Sensors; Wind tunnels; Iterative methods; Errors; Algorithms; Robustness (control systems)

Identifiers: Air data parameters; Guided munitions; Control stability; Pressure sensors; Differential corrections method; Inflight estimation; Mach number; Angle of attack; Roll angle; Free stream pressure

Classification Codes:

731.1 (Control Systems); 944.4 (Pressure Measurements); 404.1 (Military Engineering); 651.2 (Wind Tunnels); 921.6 (Numerical Methods); 651.1 (Aerodynamics, General)

731 (Automatic Control Principles); 944 (Moisture, Pressure & Temperature, & Radiation Measuring Instruments); 404 (Military Engineering); 651 (Aerodynamics); 921 (Applied Mathematics)

73 (CONTROL ENGINEERING); 94 (INSTRUMENTS & MEASUREMENT); 65 (AEROSPACE ENGINEERING); 92 (ENGINEERING MATHEMATICS)

25/5/4 (Item 4 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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in agreement with theoretical predictions. The front motion impacted the overall reaction rate, leading to oscillations as high as 30% of the conversion in the fully ignited state. In general, a decrease in the CO/O<sub>2</sub> ratio tended to make the system more oscillatory in nature. The front motions were also strongly influenced by the nonuniformity of the catalyst and the transport to and from it, as well as the global coupling due to gas-phase mixing. The maximum temperature of a nonuniform state at a lower vessel temperature may be as high as that of an ignited state at a much higher vessel temperature due to an increase in the CO concentration in the vessel.

Regions of the parametric space where such nonuniform states may exist have also been identified. The dimensions of the patterns seen in our system imply that patterns of the order of several cm in size and much larger than individual pellets may exist in commercial reactors. This work is the first study that has provided quantitative data on the formation and motion of such patterns in a radial flow reactor.

25/5/6 (Item 2 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01564531 ORDER NO: AAD97-22337

**AN INVESTIGATION OF INSTRUCTIONAL SYSTEMS DESIGN PRACTICE VIA ESURVEY  
METHODOLOGY**

Author: SCHRODER-HENDRIX, JOAN E.

Degree: PH.D.

Year: 1997

Corporate Source/Institution: THE UNIVERSITY OF OKLAHOMA (0169)

Major Professor: JAY C. SMITH

Source: VOLUME 58/02-A OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 385. 205 PAGES

Descriptors: EDUCATION, EDUCATIONAL PSYCHOLOGY ; EDUCATION, CURRICULUM  
AND INSTRUCTION

Descriptor Codes: 0525; 0727

An esurvey was designed to be implemented via the Internet and targeted toward a large, heterogeneous population of Instructional Designers and developers from educational, corporate, government, and technical environments. The overall goals of the study included contributing to the evolving research foundation of Instructional Systems Design (ISD) models, practices, and measurement. Respondent data sets were analyzed according to two different grouping structures. The first grouping structure concerned the number of years experience in working with ISD projects where respondent data sets were grouped into three categories, Novice, Intermediate, and Expert. The second group structure categorized the data according to three levels of ISD project complexity. Analysis of Variance procedures and the Newman-Keuls Multiple Comparison test were performed for each of the seventeen ISD activities represented in the esurvey instrument. The data results included three findings of statistical significance at the 0.05 level. Statistically significant differences were found between the Novice mean and the means for both the Intermediate and Expert groups for the ISD activity, "Determines if the need can be solved by training"; the Novice group rated this item significantly lower than did the Intermediate and Expert Groups. For the ISD item, "Selects instructional strategies", the High Level Complexity group responded significantly differently than did the Medium Level Complexity group, with this activity receiving higher ratings by the High Level Complexity group. Also when grouped by Project Complexity Levels, the mean responses to the ISD item, "Conducts individual trials of instruction before completion" were found to be statistically significant between the Low Level Complexity group and the High Level Complexity group. In addition to these findings of statistical significance, a rich array of qualitative comment data was provided by the esurvey respondents. Three general themes were identified within the comment data. The respondents indicated that when ISD is successfully used, they generally have an accepted model or procedures of conducting ISD which are used to guide the process. The respondents also

clearly indicated that the barriers to successful implementation of the ISD activities included contextual and resource issues such as client and management support, sufficient time, and adequate funding. An additional theme was indicated concerning the use of ISD activities within the academic and university environments. Although not specifically asked to identify this type of environment, a group of respondents provided vivid information concerning special concerns and problems with the practice of ISD in the academic context.

25/5/7 (Item 3 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01133481 ORDER NO: AAD90-34325  
**SPATIAL DATA STRUCTURES AND SPATIAL ACCESS METHODS FOR KNOWLEDGE BASED GEOGRAPHIC INFORMATION SYSTEM III (GEOGRAPHIC INFORMATION SYSTEMS)**  
Author: GAO, PENG  
Degree: PH.D.  
Year: 1990  
Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, SANTA BARBARA ( 0035)  
Chairman: TERENCE R. SMITH  
Source: VOLUME 51/07-A OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 2483. 160 PAGES  
Descriptors: GEOGRAPHY, SOCIAL; COMPUTER SCIENCE; REMOTE SENSING  
Descriptor Codes: 0366; 0984; 0799

This dissertation presents research on spatial **data structures** and spatial access methods for Geographic Information Systems (GIS). Geographical data types and a variety of data models and **data structures** that represent the **different** data types are discussed. A set of requirements and spatial operations on the spatial **data structures** are also introduced so that the optimal **data structures**, in terms of both compactness and efficiency in supporting spatial operations, can be selected based on the given data types and required spatial operations. There is no single **data structure** that is optimal for all types of geographical data, but a possible solution is a multistructured data representation, which employs more than one **different data structures** to represent **different** types of geographic data in a single GIS. Based on the idea of multistructured data representation, space efficient quadtrees called Compact Quadtrees (CQT) are **first** investigated for representing area and surface data types in Knowledge Based Geographic Information System III. These quadtree structures, together with a spatial access method for quadtrees, successfully overcome the problems associated with the pointer based quadtrees. Comprehensive experimental performance evaluations are then conducted on several important Spatial Access Methods (SAM) under a variety of **different** data sets with **different** object frequency, object density, object size distribution ratio, as well as object spatial distribution. This performance evaluation provided a **guidance** for selecting a proper spatial access method for handling line data and point data type in KBGIS. Next, a refined spatial object representation, called Gridded Minimum Bounding Rectangle (GMBR) is developed from the **original** Minimum Bounding Rectangle (MBR). When applied to R-Tree, this object approximation significantly improves the search performance of R-Tree. Finally, as an application of CQT, a top-down image classification algorithm for quadtree structures is presented. This algorithm, which takes advantage of hierarchical information stored at each level in quadtrees, can substantially reduce the time complexity of the traditional image classification algorithms.

25/5/8 (Item 4 from file: 35)  
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01122563 ORDER NO: AAD90-28355

the role of data transformation and reduction in extracting that structure. The multiple stable configurations in phytoplankton species replacement are discussed as an example of the hierarchical nature of environmental control.

25/5/12 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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6254070 INSPEC Abstract Number: C1999-07-6130D-007

**Title: SQL-based XML structured data access**

Author(s): David, M.M.

Journal: WEB Techniques vol.4, no.6 p.67-8, 70, 72

Publisher: Miller Freeman,

Publication Date: June 1999 Country of Publication: USA

CODEN: WETEFA ISSN: 1086-556X

SICI: 1086-556X(199906)4:6L.67:BSDA;1-H

Material Identity Number: F184-1999-005

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: SQL and XML seem to have distinctly **different** strengths. XML is used to represent highly structured hierarchical information while SQL is intended for processing data represented as rows and columns in a relational database. Hierarchical **data structures** are excellent for organizing data because they have a singular, unambiguous point of view, making their semantics very powerful. Relational databases, on the other hand, are useful because they allow many **different data structure formations** to be created dynamically from the same data. Because each is important, transforming relational data into a hierarchical structure will let us create XML documents from a database. We also want to do the reverse, which will let us import XML documents into a database. Using ANSI SQL's newer outer join operation, we can perform these transformations between relational data and XML. By understanding the similarities of SQL and XML, developers can **begin** to work with XML in a similar fashion to the way they work with traditional databases. Parsers and programs can be written to transparently **move** data back and forth between conventional data stores and Web pages without losing or altering the semantics associated with the data. (0 Refs)

Subfile: C

Descriptors: **data structures** ; hypermedia markup languages; information retrieval; relational databases; SQL

Identifiers: SQL based XML **structured data access**; highly structured hierarchical information; relational database; hierarchical **data structures** ; data semantics; **data structure formations** ; XML documents ; ANSI SQL; outer join operation; relational data; parsers; Web pages; conventional data stores

Class Codes: C6130D (Document processing techniques); C6140D (High level languages); C6160D (Relational databases); C6130M (Multimedia); C7240 (Information analysis and indexing); C4250 (Database theory); C7250R (Information retrieval techniques); C6120 (File organisation)

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25/5/13 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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5123427 INSPEC Abstract Number: C9601-7100-027

**Title: Information sharing arrangements in electronic data interchange environments**

Author(s): Rasch, R.H.; Hansen, J.V.

Author Affiliation: Auburn Univ., Montgomery, AL, USA

Journal: Journal of Information Systems vol.7, no.2 p.85-96

Publication Date: Fall 1993 Country of Publication: USA

CODEN: JINFE3 ISSN: 0888-7985

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Electronic data interchange (EDI) applications change the ways in which firms do business and provide the foundations for information sharing among trading partners. The article presents a formal model to analyze EDI information sharing arrangements, which can benefit the organization by reducing costs and enabling optimal pricing strategies. The results of a simulation show that sharing even modest subsets of information can produce superior performance for all trading partners. These results are consistent with choices that have produced significant benefits in practice. Since each EDI arrangement is unique to the firms involved, general guidelines can only be determined based on evaluating a number of different situations. Although the determination of these rules is beyond the scope of the article, an approach is developed that can be used as an initial starting point to evaluate alternative EDI information sharing arrangements. (17 Refs)

Subfile: C

Descriptors: business data processing; costing; digital simulation; electronic data interchange; information systems

Identifiers: information sharing arrangements; electronic data interchange environments; firms; business; trading partners; formal model; cost reduction; optimal pricing strategies; simulation

Class Codes: C7100 (Business and administration); C6130E (Data interchange)

Copyright 1995, IEE

25/5/14 (Item 3 from file: 2)

DIALOG(R) File 2:INSPEC

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4763861 INSPEC Abstract Number: C9410-7250N-003

Title: STN-PFS: a powerful tool to handle bibliographic, full-text and reference data

Author(s): Meyer, F.

Author Affiliation: Gesellschaft fur Wissenschaftlich-Technische Inf. mbH, Fachinformationszentrum Karlsruhe, Germany

Journal: Quarterly Bulletin of the International Association of Agricultural Librarians and Documentalists vol.39, no.1-2 p.81

Publication Date: 1994 Country of Publication: Netherlands

CODEN: QBALAE ISSN: 1019-9926

Conference Title: International Symposium on New Information Technologies in Agriculture

Conference Date: 10-12 Nov. 1993 Conference Location: Bonn, Germany

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Practical (P); Product Review (R)

Abstract: The original aim of the STN Personal File System (STN-PFS) was to optimally convert the two online databases 'Chemical Abstracts' and 'Chemical Abstracts Registry' for use on a personal computer. In 1988, DBMS packages could not handle the complex structures of these databases. One problem was the size of the abstract fields which can contain up to 8000 symbols. The field length of many DBMSs is limited to 256 symbols, and the maximum field size, once stipulated, is always stored in a data record, even if the field has no content. This leads to wasted storage space. STN-PFS solves this problem by a completely different data structure, where only the present data area is saved. The data volume taken by a blank field is saved in 2 bytes. STN-PFS is not limited to chemical databases. There are absolute limits for the convenient use of a relational DBMS. Non-menu driven retrieval interfaces show advantages when experts do not have to navigate through menus but want to obtain results as fast and efficient as possible. Such an interface allows one to use STN-PFS directly as a host over a network or modem. Nevertheless, menu-driven query interfaces are actually being developed under MS-Windows and UNIX/X Windows to permit access to the STN-PFS database for the beginner and the occasional user. (0 Refs)

Subfile: C

Set	Items	Description
S1	5543301	NAVIGAT? OR GUID? OR MANEUVER? OR MOVE?
S2	4488297	STRUCTURE? OR FORMATION? OR ARRANGEMENT? OR CONFIGURATION? OR ORGANIZATION
S3	63659	(DISSIMILAR? OR UNLIKE? OR UNIQUE OR DIFFERENT OR UNLIKE OR DISPARATE) (2N) S2
S4	15827036	SOURCE OR ORIGIN? OR BEGIN? OR ROOT? OR FIRST OR 1ST OR P- RIME OR PRIMARY OR INITIAL OR LEADING OR MAIN OR DOMINANT OR - CARDINAL OR ORIGINAL
S5	59083	DATA(2N) S2
S6	152420	DATASET? OR DATA() (SET? OR COLLECTION?)
S7	602819	(CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP?) (2N) (I- NFORMATION OR FACT? OR KNOWLEDGE)
S8	978708	"NOT"() (FOUND OR PRESENT) OR ABSENT OR ABSENCE OR LACKING - OR MISSING OR WANTING
S9	6842689	TARGET OR DIFFERENT OR ANOTHER OR SEPARATE
S10	10175848	COMPUTE? OR CALCULATE OR FIGURE? OR FIGURING OR MEASUR? OR MODEL???
S11	133	DISTANCE() METRIC?
S12	6060	S4 (2N) S6
S13	3334	S6 (2N) S9
S14	0	S11 (S) S12 (S) S13
S15	12394	S5 (S) S4
S16	7942	S5 (S) S9
S17	0	S15 (S) S16 (S) S11
S18	2257	S15 (S) S16
S19	109	S12 (S) S13
S20	2	S18 (S) S19
S21	159	S18 (S) S3
S22	19	S21 (S) S1
S23	0	S19 (S) S3
S24	11	S11 (S) S4 (S) S9
S25	32	S20 OR S22 OR S24
S26	21	S25 NOT PY>1999
S27	19	S26 NOT PD>19990402
S28	16	RD (unique items)
File	15:ABI/Inform(R)	1971-2003/Oct 09 (c) 2003 ProQuest Info&Learning
File	810:Business Wire	1986-1999/Feb 28 (c) 1999 Business Wire
File	647:CMPI Computer Fulltext	1988-2003/Sep W2 (c) 2003 CMP Media, LLC
File	275:Gale Group Computer DB(TM)	1983-2003/Oct 09 (c) 2003 The Gale Group
File	674:Computer News Fulltext	1989-2003/Oct W1 (c) 2003 IDG Communications
File	696:DIALOG Telecom. Newsletters	1995-2003/Oct 08 (c) 2003 The Dialog Corp.
File	583:Gale Group Globalbase(TM)	1986-2002/Dec 13 (c) 2002 The Gale Group
File	47:Gale Group Magazine DB(TM)	1959-2003/Oct 08 (c) 2003 The Gale group
File	624:McGraw-Hill Publications	1985-2003/Oct 09 (c) 2003 McGraw-Hill Co. Inc
File	636:Gale Group Newsletter DB(TM)	1987-2003/Oct 09 (c) 2003 The Gale Group
File	484:Periodical Abs Plustext	1986-2003/Sep W4 (c) 2003 ProQuest
File	813:PR Newswire	1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	613:PR Newswire	1999-2003/Oct 09 (c) 2003 PR Newswire Association Inc
File	16:Gale Group PROMT(R)	1990-2003/Oct 09 (c) 2003 The Gale Group
File	160:Gale Group PROMT(R)	1972-1989 (c) 1999 The Gale Group
File	141:Readers Guide	1983-2003/Aug

(c) 2003 The HW Wilson Co

File 553:Wilson Bus. Abs. FullText 1982-2003/Aug

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28/5,K/1 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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01720719 03-71709

\*\*USE FORMAT 9 FOR FULL TEXT\*\*

**Programming tools and environments**

Saltz, Joel; Sussman, Alan; Graham, Susan; Demmel, James; et al

Communications of the ACM v41n11 PP: 64-73 Nov 1998 ISSN: 0001-0782

JRNL CODE: ACM

DOC TYPE: Journal article LANGUAGE: English LENGTH: 10 Pages

SPECIAL FEATURE: Charts References

WORD COUNT: 4606

**ABSTRACT:** Advances in the computational capabilities of high-performance architectures make it possible for computational scientists and engineers to address increasingly challenging problems. At the same time, it is becoming considerably more difficult to build software that achieves high performance on these systems. The challenge for researchers developing programming tools and environments for high-performance computing is to enable application programmers to more easily develop software systems that exploit contemporary architectures, while scaling up through the physical aspects of the problem, including problem size, data set size and complexity, the coupling of component solutions, and the complexity of numerical calculations. Five systems are discussed: 1. Kernel Lattice Parallelism, 2. Titanium, 3. the Active Data Repository, 4. SuperLU, and 5. Prometheus. All target high-end scientific computing application domains.

GEOGRAPHIC NAMES: US

DESCRIPTORS: High performance systems; Parallel processing ; Computer architecture; Software; Science; R&D

CLASSIFICATION CODES: 9190 (CN=United States); 5240 (CN=Software & systems) ; 5400 (CN=Research & development)

...TEXT: provides infrastructure for building parallel database systems that enable integration of storage, retrieval, and processing of multidimensional data sets .

ADR's main advantage derives from its ability to integrate data retrieval and processing for a variety of applications and to maintain and jointly process multiple data sets with different underlying grids. ADR is easy to customize for different types of processing. To build a version of ...

...customized for a particular application, a user has to declare and build indexes for all disk-based data structures and provide functions to: preprocess the input data; map input data to elements in the output data; and aggregate multiple input data items mapping to the same output element. Disk-based data structures in ADR can be irregular in the sense that special spatial index data structures may be needed to associate a coordinate in a multidimensional space with a disk location.

ADR development...

28/5,K/3 (Item 1 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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02016024 SUPPLIER NUMBER: 18917151 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Java's disk a real pick-me up for programmers. (MindQ Publishing's Java Programming and Core Class Libraries CD-ROM courseware) (Lab Note) (Software Review) (Evaluation)

Coffee, Peter

PC Week, v13, n48, p102(1)

Dec 2, 1996

DOCUMENT TYPE: Evaluation      ISSN: 0740-1604      LANGUAGE: English  
RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 565      LINE COUNT: 00049

ABSTRACT: MindQ Publishing's Java Programming and Core Class Libraries CD-ROM courseware, which is priced at \$49.95 is an effective, audio-video Java programming teaching tool. It provides dynamic highlighting of source code listings to trace the flow of an application, audio narration and animated movements of data values between on-screen representations of various data structures. Users will find complex topics effectively addressed, including the possible interference between concurrent threads in the absence of synchronization of methods. Random access and sequential topics are provided on the disk, so novices can make use of a step-by-step introduction while intermediate users can go directly to topics that interest them. Users will appreciate that resources, including video clips, can be enhanced via on-screen transcripts providing hypertext links to definitions of terms utilized by individuals in recorded conversations.

SPECIAL FEATURES: illustration; other

COMPANY NAMES: MindQ Publishing Inc.--Products

DESCRIPTORS: Educational/Training Software; Business Training Software; Software Single Product Review

PRODUCT/INDUSTRY NAMES: 7372470 (Educational Software Pkgs (Micro))

SIC CODES: 7372 Prepackaged software

TRADE NAMES: Java Programming and Core Class Libraries (Business training software)--Evaluation

FILE SEGMENT: CD File 275

... with sound track that often pass for a multimedia product. MindQ combines audio narration, dynamic highlighting of **source** code listings to trace the flow of a program and animated **movement** of data values between on-screen representations of **different data structures**. This illuminates such complex topics as potential interference between concurrent threads in the absence of method synchronization...

28/5,K/4 (Item 2 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01450125      SUPPLIER NUMBER: 11278649      (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Mac leads the way. (Apple Macintosh and object orientation) (includes a  
related article on the role of standards)  
RELEASE 1.0, v91, n8, p5(7)  
August 31, 1991  
ISSN: 1047-935X      LANGUAGE: ENGLISH      RECORD TYPE: FULLTEXT  
WORD COUNT: 3578      LINE COUNT: 00287

DESCRIPTORS: Object-Oriented Programming; Products; Trends; Outlook;  
Future of Computing; Interoperability; Object Recognition; Application  
Development Software

TRADE NAMES: Apple Macintosh (680X0-based system)--Design and  
construction

FILE SEGMENT: CD File 275

... can't tell! And we certainly can't get in there and change the priorities." We have **another** problem: We have two paper trays, potentially with two kinds of paper, but we don't know...

...fonts work together? Stand by at the printer to find out. The Mac's resource fork The **beginning** of the answer is the Macintosh's resource forks, which every conforming application includes. They list each don't always gracefully handle the follow-up for users whose systems weren't available the **first** time around. They also suffer from somewhat imperfect integration, even within a single tool: **First** you use one process to find out what people have out there; then you use **another** to ship the desired updates, and so forth. Although most of them have solved only part of...

...of them are starting to work together. Handling the current range of applications and environments is the **primary** concern of these vendors today; objects are off in the future. This focus on the current situation ...

...to detect conflicts or potential problems. \* facilities for resolving problems and conflicts, which could be scripts to **move** or remove some files, or messages to the user, including such messages as "Call the vendor at..."

...in-house applications. The developer version of Personal\*Status is an installation scripting tool that uses local **configuration data** in conjunction with a core knowledge base of general systems information plus application-specific configuration rules and...

...requirements. Beech is now approaching application developers to sign on; he's currently negotiating an agreement with **another** Mac-oriented vendor that should help in this regard. "We'll send vendors a letter documenting problems...good things, while striving to foster information and standards so that all those individuals can use their **unique configurations** and still communicate and operate effectively in a linked world. While Teknosys, for example, basically works off..."

....The product, shipping next week, will cost \$149 including the resource checker, and quarterly updates will cost **another** \$75 a year. The company started out in 1988 in the systems integration business, and started thinking...

...the surveying tool) that produces local configuration information, and an automated software installation tool. It is the **first** product to incorporate the Apple Compatibility Checker to find potential problems, and then lets the administrator resolve...has already promised to his customers? So far, Apple's approach is the most advanced, with the **beginnings** of a registration system, but its own attempt at an application database is still narrow-minded: What's the **first** version in which you're compatible with System 7? What's your current version? This information, updated...

28/5,K/5 (Item 3 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01292546 SUPPLIER NUMBER: 07583869 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Cognos PowerHouse now under HP-UX; IBM AS-400, Data General AViON next up.  
(Cognos Software Inc.'s Unix versions of PowerHouse language) (product  
announcement)

Computergram International, n1173, CGI05100009

May 10, 1989

DOCUMENT TYPE: product announcement ISSN: 0268-716X LANGUAGE:  
ENGLISH RECORD TYPE: FULLTEXT  
WORD COUNT: 163 LINE COUNT: 00012

COMPANY NAMES: Cognos Inc.--Product introduction  
DESCRIPTORS: Product Introduction; Product Development; UNIX  
SIC CODES: 7372 Prepackaged software  
TRADE NAMES: PowerHouse 4GL (Application development software)--Product  
development; HP UX (Operating system)--Computer programs  
OPERATING PLATFORM: HP-UX; Unix  
PROGRAMMING LANGUAGE: PowerHouse  
FILE SEGMENT: CD File 275

... revealed at the end of last year, Cognos Software Inc, Ottawa, Ontario, Canada, has announced that the **first** of these is now available on Hewlett Packard Co's HP-UX operating system. The next version will be for Data General's recently launched 88000-based AViON architecture, and fulfilling an intention to **move** into the IBM market, Cognos says it has

now started work on a version for the AS...

...to offer HP SQL through the StarGate component of StarBase, which provides gateways to enable databases of **different structures** to exchange **data** .

28/5,K/6 (Item 4 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01258547 SUPPLIER NUMBER: 07143777 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Navigating data space. (one of twelve articles in Macintosh Gateways supplement)**

Keenan, Vernon  
MacWEEK, v2, n46, ps22(1)  
Nov 15, 1988  
ISSN: 0892-8118 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT  
WORD COUNT: 786 LINE COUNT: 00063

**ABSTRACT:** The Apple-owned Network Innovations has taken the first step in facilitating Apple Macintosh user's access into a variety of information systems. The company is introducing the Connectivity Language 1 (CL-1) networking language, which lets Mac users access remote foreign databases. Apple has adopted CL-1 as a model for the way the Mac will relate to a variety of database systems, and endorsements from DEC, Oracle Corp, Relational Technology Inc, and Informix Inc confirm CL-1's strategic importance. CL-1 will run on the Macintosh as sets of external functions in connection with several standalone applications. It enables Mac developers to adapt current word processing, database, and spreadsheet applications for easy access to services offered by CL-1-based systems. Although no one is predicting a date for the realization of massive data access, CL-1 has moved that possibility a little closer.

SPECIAL FEATURES: illustration; photograph  
COMPANY NAMES: Network Innovations Corp.--Products; Apple Computer Inc.--  
Data processing  
DESCRIPTORS: Connectivity; Access Methods; Networks  
SIC CODES: 7372 Prepackaged software  
TICKER SYMBOLS: AAPL  
TRADE NAMES: CL-1 (Computer program language)--Usage  
PROGRAMMING LANGUAGE: CL-1  
FILE SEGMENT: CD File 275

... into any information system their Mac can access.

How is the brave new world of the Knowledge **Navigator** going to come about? Getting Macintosh applications to understand **different database structures** and retrieve **data** from them is a good **first** step. To this end, Apple-owned Network Innovations is implementing its Connectivity Language 1 (CL/1) networking...

28/5,K/8 (Item 1 from file: 636)  
DIALOG(R)File 636:Gale Group Newsletter DB(TM)  
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04013062 Supplier Number: 53201820 (THIS IS THE FULLTEXT)

**-ARBORTEXT: Arbortext introduces Epic.**

M2 Presswire, pNA  
Nov 10, 1998  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 2190  
TEXT:

M2 PRESSWIRE-10 November 1998-ARBORTEXT: Arbortext introduces Epic  
(C)1994-98 M2 COMMUNICATIONS LTD RDATE:091198 -- The industry's **first** XML-based enterprise software system for information creation and

publishing -- Includes applications tailored for telecommunications and computing Arbortext, Inc., the leading provider of standards-based enterprise software for information creation, editing and publishing, today announced the release of Epic - the industry's first Extensible Markup Language (XML) based framework for the Enterprise Product Information Chain, available November 30, 1998. Epic provides a framework for integrating new capabilities with existing infrastructure, as well as functionality to meet the needs of specific vertical markets. Also announced are Epic applications for the telecommunications and computing markets with additional vertical market applications planned in 1999. Today's global companies continue to strive for improved time-to-market to maintain their competitive advantage. However, the pace of product development depends in part on the accurate and timely flow of product information, which is often shared within groups but is ineffectively shared across groups. This is frequently due to the use of disparate tools and incompatible data formats. "Companies in highly competitive markets can gain significant competitive advantage by enabling the friction-free flow of information throughout the enterprise and across the entire supply chain," said Bob Crowley, CEO and president, Arbortext. "Arbortext is focusing on the product information chain to help enterprises achieve dramatic improvements in time to market with new products and services."

The Enterprise Product Information Chain The Enterprise Product Information Chain encompasses the creation, management, delivery and use of document information related to a company's products and services. Groups involved in this chain include research, engineering, technical documentation, marketing, sales, services, suppliers and customers. These groups contribute or require information for product design, manufacturing, sales, operation and servicing. Documentation for product information includes functional requirements, design specifications, product catalogs, user guides, services manuals and reference books. With the advent of the web, companies are under increased pressure to deliver updated and synchronized information to multiple media - paper, CD-ROM, and the Web. This often leads to wasted time on data conversion and lost information as content moves across the Enterprise Product Information Chain from one department to another. Rita Knox, vice president and research director for GartnerGroup in a Strategic Analysis Report, September 1998 noted, "One of information technology's (IT's) fundamental goals - to provide faster, easier access to more information - is often frustrated because information is locked away in incompatible file formats...XML and associated standards are technologies that are fundamental to enabling documents to become interactive conduits of information between humans and machines...By year-end 1999, 20 percent of all documents (e.g. strategic plans, marketing literature, technical literature, repair manuals) will not only deliver accurate and pointed information, but carry instructions sufficient to draw inferences from them (0.7 probability)." Knox continues, "Through year-end 2000, document processability, enabled by embedded markup, will be the most dramatic trend in corporate publishing (0.8 probability) allowing enterprises to transform documents from static data containers to powerful applications...XML standards will expand document markup and, by the first half of 2000, will exceed the use of HTML for publishing applications (0.9 probability)." Epic's Features and Functionality For over a decade, Arbortext has helped large organizations develop customized systems for the product information chain. To make the benefits of these custom systems available to other medium- and large-sized organizations, Arbortext has applied its best practice experience to design a framework for such systems - a framework called Epic. Epic is an innovative solution that streamlines the product information chain by allowing document data to flow freely through a common set of tools across an integrated and automated system. This framework provides editing and publishing tools that enable authors to simultaneously collaborate on the creation, review, editing and publishing of complex documents. Arbortext has customized Epic to bring specific product information applications to the telecommunications and computing markets. In 1999, Epic applications will be available for other manufacturing and publishing markets such as aerospace, automotive, heavy industrial, semiconductors, financial services and government sectors. "Our organization continually strives to adopt best-of-breed products and technology so that we can stay on the cutting edge of quality solutions and

support," said David Robinson, electronic marketing director, AT&T. "That's why we're so keen to adopt Arbortext's new Epic system, because we expect to gain significant improvements in time to market and lower costs." Additionally, Epic's automatic formatting and delivery on multiple media reduces technical writing and support costs. Supporting both native XML and SGML, this standards-based system offers tremendous functionality, such as a hierarchical document view for easy editing and **navigation**, a WYSIWYG-like view that makes document structure intuitively apparent to an author, and WYSIWYG page preview to see how the final document will look in print and on the Web. Key Epic functionality includes: \* Personalization - Using Epic's audience profiling capabilities, authors can easily select the appropriate audience profile for each document component such as skill level, release number, model number, and other attributes. \* Automatic publishing - On the publishing front, Epic offers a powerful automatic page layout and printing system that can automatically tailor delivery to each user's profile. Its integrated suite of publishing capabilities relieves employees from manual data conversions and formatting adjustments by automatically generating multiple outputs - print, HTML files, HTML Help, CD-ROM, and the Web - all from a single document **source**. When publishing to the Web or CD-ROM, Epic works with standard browsers and automatically generates a table of contents for easy **navigation** and creates an index of key words for hyperlinking to associated terms. \* Elimination of data conversion - With the product's seamless connections across departments, organizations can realize a significant reduction in data conversions. \* Facilitation of feedback - Electronic review or "redlining" offers users of web browsers the ability to share written comments and replacement text electronically with the **original** authors, who can easily accept or reject suggested changes. "As a leader in the medical device industry, we are glad to be working with Arbortext, the leader in XML/SGML standards. ADEPTEditor and the Epic system will provide state of the art tools for handling our manufacturing instructions," stated Mark Rutkiewicz, CRM documentation manager at **Guidant**. "In our applications, the accuracy, control and flexibility of information are crucial to ensure the quality of our products." Epic's authoring client, which is based on ADEPTEditor, the **leading** authoring and editing tool for structured document information, offers an intuitive user interface that speeds learning and eases use. Because ADEPTEditor is easily configurable, Arbortext was able to design a product that provides the flexibility needed to tailor workflow and **data structures** for the **unique** needs of an organization. In addition, authors can leverage existing installations of Microsoft Word through Epic's built-in conversion from Word. The product's component framework allows organizations to plug in existing software, such as authoring tools, publishing systems and document management systems, to leverage their existing investments. Epic's built-in connections to a variety of document repositories allow users to browse or search the repository and select components for insertion into the existing open document without leaving the Epic system. This makes reusing existing information even easier than cutting and pasting. Epic produces documents in two standard industry interchange formats. For the computer and hardware and software industries, Epic supports DocBook. For the telecommunications industry, Epic exports documents in Telecommunications Interchange Markup (TIM) and publishes that information in a Telecommunications Electronic Document Delivery (TEDD) package. Partners Arbortext combines 12 years of SGML knowledge and experience in helping large organizations develop custom editing and publishing solutions. Long-standing partner relationships exist with IBM Global Services, Chrystal Software, Documentum, Inc., FileNET Corporation, Inso Corporation, Texcel Systems, Inc. and Xyvision, Inc. To enhance usability and increase adoption speeds of Epic, Arbortext has embedded best-in-class components delivered through strategic partnerships with Microsoft Corporation and OmniMark Technologies Corporation. Additionally, Arbortext is collaborating with best-of-breed partners including Documentum and Sherpa Corporation to ensure that Epic integrates smoothly with these partners' products. Installation and configuration services are currently provided through Arbortext's Consulting Services Group and will be available through major systems integrators by December 1998. Pricing, Availability and Operating Environment The **initial** release of Epic will run on Microsoft Windows NT 4.0 and **begin** shipping in November 30, 1998.

Support for UNIX platforms from Digital Equipment Corporation, Hewlett-Packard Company, IBM and Sun Microsystems, Inc. is expected in February 1999. Pricing starts at \$85,000 for an entry-level configuration that supports 65 users. Prices do not include maintenance or consulting fees. Customer Endorsements Epic is being warmly received by its early adopters as well as existing Arbortext customers, including **leading** computing and telecommunications companies who are eager to leverage the XML capabilities of Epic. Valerie Rodgers, consulting technical writer for the UNIX Software Division of Compaq Computer Corporate, noted, "As a leader in 64-bit UNIX, we've achieved real advantage by implementing an end-to-end standards-based system for creating, managing and delivering product information. It's exciting to see Arbortext be the **first** to deliver a complete solution." Additional enthusiasm comes from Per-Ake Ling, technical expert, of Ericsson. "Ericsson needs to react quickly to maintain its leadership position. By using SGML/XML, our efficiency in creating product information has improved significantly. Arbortext is an important partner for implementing state-of-the-art solutions adhering to these standards. Ericsson is strongly focused on quality. Therefore, we chose Arbortext as a reliable partner with strong commitments to current and future XML standards." "As the **leading** provider of network computing systems, we continuously strive to leverage **leading** -edge technology to speed time to market, improve quality and ensure customer loyalty," said Todd Freter, program manager, Solaris Software, Sun Microsystems, Inc. "Several years ago we adopted Arbortext's authoring and publishing software to dramatically improve productivity of our information developers. Building on these improvements, we're excited about Arbortext's new Epic initiative which promises to offer a complete solution for continued cost savings and process reductions." According to Russ Rauhauser, distinguished member of the technical staff, Lucent Technologies, "In today's marketplace, speed and responsiveness are competitive advantages. Every second counts when your goal is **first** -to-market. Systems for the product information chain can make the difference." Rauhauser continued, "As a provider of telecommunications products and services to valued customers around the world, we continually incorporate customer feedback into what we do and what we deliver. Arbortext's Epic promises to ease the task of integrating existing publishing tools and help our associates collaborate more effectively during the editorial process. In Epic, we anticipate more of the same high-quality software and services we have come to expect from Arbortext." Partner Enthusiasm Additional enthusiasm for Epic comes from long-standing technology partners Documentum and Microsoft. "For years, Arbortext and Documentum have partnered to provide SGML management capabilities in a wide variety of industries," said Matt Shanahan, vice president of product marketing for Documentum. "Epic's native integration with Documentum's EDMS 98 combines XML with a common enterprise repository to capture and reuse information throughout the enterprise product information chain." Microsoft Corp. recently demonstrated the latest XML technologies it will add to Microsoft Internet Explorer 5 and the Windows operating system, including XML 1.0, XSL, DOM and XML Namespaces. With these new technologies, Microsoft becomes the **first** major software vendor whose browser incorporates support for many of the latest XML specifications coming out of the World Wide Web Consortium (W3C). "Organizations needing to easily create vast amounts of structured documents have struggled with finding the right tool to easily manage the daunting task of creating, editing and publishing information," said David Turner, XML evangelist, Microsoft Corporation. "With Arbortext's Epic approach, authors can take full advantage of XML for structured editing, targeted search, automatic delivery and easy data reuse in a mission-critical environment." About Arbortext Founded in 1982, Arbortext is the **leading** provider of standards-based enterprise software solutions that enable companies to share, manage and reuse vital information across the enterprise product information chain. Global 5000 organizations such as The Boeing Company, Caterpillar, Inc., Digital Equipment Corporation, Ford Motor Company, Grolier's Encyclopedia, Lockheed Martin, National Semiconductor, and Sun Microsystems, Inc., use Arbortext's products to create, deliver, and reuse information. Arbortext's customers achieve dramatic improvements in business-critical document processes to accelerate time-to-market, improve information quality, and enhance operational

efficiencies. The company is headquartered in Waltham, Mass., and maintains offices in Ann Arbor, Mich., London, Paris, and Tokyo. The company has more than 150 employees worldwide. For more information about Arbortext's products, consulting services and training programs, contact Arbortext at +1 734.997.0200, send email to [info@arbortext.com](mailto:info@arbortext.com), or visit the Arbortext website located at <http://www.arbortext.com>. NOTE: Epic is a trademark of Arbortext, Inc. in the United States. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corp. in the United States and/or other countries. Sun, Sun Microsystems, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. Other product and company names herein may be trademarks of their respective owners. CONTACT: Lisa Griffiths/Frances Tindall, Text 100 Tel: +44 (0)181 242 4123/4246 e-mail: [Lisag@text100.co.uk](mailto:Lisag@text100.co.uk) e-mail: [frances@text100.co.uk](mailto:frances@text100.co.uk) \*M2 COMMUNICATIONS DISCLAIMS ALL LIABILITY FOR INFORMATION PROVIDED WITHIN M2 PRESSWIRE. DATA SUPPLIED BY NAMED PARTY/PARTIES.\*

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(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...November 1998-ARBORTEXT: Arbortext introduces Epic (C)1994-98 M2 COMMUNICATIONS LTD RDATE:091198 -- The industry's **first** XML-based enterprise software system for information creation and publishing -- Includes applications tailored for telecommunications and computing Arbortext, Inc., the **leading** provider of standards-based enterprise software for information creation, editing and publishing, today announced the release of Epic - the industry's **first** Extensible Markup Language (XML) based framework for the Enterprise Product Information Chain, available November 30, 1998. Epic...

...manufacturing, sales, operation and servicing. Documentation for product information includes functional requirements, design specifications, product catalogs, user **guides**, services manuals and reference books. With the advent of the web, companies are under increased pressure to...

...and the Web. This often leads to wasted time on data conversion and lost information as content **moves** across the Enterprise Product Information Chain from one department to **another**. Rita Knox, vice president and research director for GartnerGroup in a Strategic Analysis Report, September 1998 noted...

...documents from static data containers to powerful applications...XML standards will expand document markup and, by the **first** half of 2000, will exceed the use of HTML for publishing applications (0.9 probability)." Epic's...

...this standards-based system offers tremendous functionality, such as a hierarchical document view for easy editing and **navigation**, a WYSIWYG-like view that makes document structure intuitively apparent to an author, and WYSIWYG page preview...

...multiple outputs - print, HTML files, HTML Help, CD-ROM, and the Web - all from a single document **source**. When publishing to the Web or CD-ROM, Epic works with standard browsers and automatically generates a table of contents for easy **navigation** and creates an index of key words for hyperlinking to associated terms. \* Elimination of data conversion - With

...

...offers users of web browsers the ability to share written comments and replacement text electronically with the **original** authors, who can easily ...state of the art tools for handling our manufacturing instructions," stated Mark Rutkiewicz, CRM documentation manager at **Guidant**. "In our applications, the accuracy, control and flexibility of information are crucial to ensure the quality of our products." Epic's authoring client, which is based on **ADEPTEditor**, the **leading** authoring and editing tool for structured document information, offers an intuitive user interface that speeds learning and...

...configurable, Arbortext was able to design a product that provides the flexibility needed to tailor workflow and **data structures** for the **unique** needs of an organization. In addition, authors can leverage existing installations of Microsoft Word through Epic's...

...and will be available through major systems integrators by December 1998. Pricing, Availability and Operating Environment The initial release of Epic will run on Microsoft Windows NT 4.0 and **begin** shipping in November 30, 1998. Support for UNIX platforms from Digital Equipment Corporation, Hewlett-Packard Company, IBM...

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...system, including XML 1.0, XSL, DOM and XML Namespaces. With these new technologies, Microsoft becomes the **first** major software vendor whose browser incorporates support for many of the latest XML specifications coming out of data reuse in a mission-critical environment." About Arbortext Founded in 1982, Arbortext is the **leading** provider of standards-based enterprise software solutions that enable companies to share, manage and reuse vital information...

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03831594 Supplier Number: 48324423 (THIS IS THE FULLTEXT)

ANOTHER NEW PDM FOR PTC

Computer Aided Design Report, v18, n3, pN/A

March 1, 1998

ISSN: 0276-749X

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

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TEXT:

Parametric Technology Corporation is expecting within five years to make more money from PDM software than from CAD/CAM, according to comments made on January 15 by PTC's chairman Steve Walske to stock--market analysts.

"Two--thirds of our revenue will be based on product information management applications and one--third on CAD applications. That's the entrepreneurial transformation that's taking place in the company right now," Walske said. Walske's prediction is stunning, in light of the fact that PTC's revenues for fiscal year 1997, which ended September 30, were almost \$809 million. The company's 26 percent increase in **first** -- quarter 1998 revenue puts it on track to top the \$1 billion mark this year. Assuming PTC's CAD business doesn't grow at all (and it probably will), Walske's forecast puts his company's PDM sales at close to \$2 billion in five years. How does PTC expect to make this number? In part by pushing Web--based PDM software developed by members of the same technical team that developed Metaphase. PTC inherited Windchill Technologies Incorporated, the company developing the new PDM software, when it bought Computervision Corporation late last year. The Minnesota--based Windchill was funded by Computervision to develop a new software architecture for its PDM system, Optegra. Described by PTC's president Richard Harrison as "a diamond in the rough," Windchill is led by James Heppelmann, chief technical officer of Metaphase before it was acquired by Structural Dynamics Research Corporation. Heppelmann's team at Windchill has developed two software programs. The **first**, NetFactor, is a software toolkit that can be used to set up a completely Web--based product data management system. The second program, called ProductCenter, is a set of applications to manage design and manufacturing information built with the NetFactor software. During a recent interview, Heppelmann often referred to NetFactor as "a next generation of Metaphase." Easy Data Sharing A key advantage of NetFactor's architecture, according to Heppelmann, is that it lets people find product information in diverse databases without requiring that the databases use the same data model. A data model describes how information is organized inside PDM system. Most PDM systems employ relational databases that organize data into tables of rows and columns. Some PDMs employ data models that have a relatively small number of large tables. Others have smaller tables, but a greater variety of them. If one data model describes product data one way and a second data model describes them in **another** way, most PDM programs will not know that the two descriptions depict the same thing. Therefore, neither database will be able to exchange information effectively. Problems arise when implementing PDM because no two business processes within the same company are described the same way. Therefore, much time and energy is spent trying to shoehorn everyone's requirements into a single, comprehensive data model. Companies spend years trying to develop such data models for PDM, often to no avail. In a NetFactor system, however, what the data model looks like does not really matter, Heppelmann says. The PDM component of NetFactor is actually a specialized Web server (a computer that supplies Web pages to client systems running Web browser software). NetFactor PDM objects, which include things like parts and documents, are described by a **separate** uniform resource locator (URL). A URL is a Web address that tells where to find certain files. In NetFactor, users access PDM information by linking to it through the URLs, exactly the way users surfing the Internet click on links to reach Web pages. NetFactor URLs also can be thought of as distributed application programming interfaces (APIs) because they not only indicate the location of the data, they also may issue commands that cause the PDM program to take some action on the data. The URLs are automatically generated by the NetFactor program as customers use forms and Java applications (called applets) to set up their PDM applications. Users work with NetFactor URLs in one of two ways. They can use a PDM search engine to ask for information using key words. The search engine then brings back a list of URLs that can be followed (by clicking on them) to find data. Alternatively, Web pages containing lists of URLs can be set up in a NetFactor application. These URLs point to Web pages that contain product information such as CAD models, specifications, or change requests. The NetFactor Web pages that describe related information are not generated automatically. Someone has to decide, for example, which design and manufacturing URLs are related and put together the links accordingly. But this is a much easier task than trying to set up and map two **separate** data models, Heppelmann claims. Plus, the Web pages can be changed at any time, and data models cannot. "That does not sound like much, but it is impossible in Metaphase, in IBM Product Manager, in any other PDM system," said Heppelmann. The NetFactor system uses an object--relational database,

such as Oracle 8, at its core. Object--relational databases will store data that is not managed well in traditional relational--database tables. So--called unstructured data, which is information that cannot be decomposed into tabular form, is handled in Oracle 8 by a feature called a "large object." A large object can contain **data** with a **structure** that's **different** from the relational tables of the database. Examples of large objects might include VRML images, CAD files, or video clips. Java Server The NetFactor program employs a three--tier architecture, with a database, a middleware server program that provides access to the database, and a thin--client interface. The NetFactor server software is written in Java, although the system does include non--Java components, such as a search engine written in C++. The Java--based middleware, however, is the plumbing that ties these components together. The system is one of the **first** PDM programs we have heard of that offers both a Java server and client. Today, most PDM companies sell only Java client software. The NetFactor client software uses Java, Java script, and HTML to build Web pages that provide product information to users through browser software from Netscape or Microsoft. When a user wants to perform an action, such as order an engineering change, the server sends one or more applets to the client, which formats a Web page that embeds the Java. The applets perform whatever action is required. For example, an applet might produce a change--request form that is filled out online and routed to **another** location for more action. Heppelmann said that his development team has had no trouble building Java programs that are compatible with both Netscape **Navigator** and Microsoft's Internet Explorer Web browser software. Sun Microsystems, the developer of Java, recently sued Microsoft, saying that certain features of Java are not supported in Internet Explorer. Not so, said Heppelmann. "Microsoft does support all the features of Java, they just do not package them with their standard server software. We had to go to Microsoft for the missing pieces we needed. We downloaded everything [needed for development] from the Microsoft Web site." NetFactor Applications NetFactor gives customers the freedom to build a PDM application that matches their unique business practices. **Another** difference between NetFactor and PDMs not built on the distributed Web architecture is that any business process set up in a NetFactor program can be changed. Most of today's PDM programs are highly structured and are not easily modified. Windchill has developed a set of NetFactor applications, code--named ProductCenter, to give customers a way to manage design and manufacturing data. According to Heppelmann, customers will be able to buy ProductCenter (or whatever it is called in the future) to set up a basic PDM. If they want to do additional development, they would use NetFactor to extend the ProductCenter applications. Initially, ProductCenter will provide a document manager, a product structure manager, a view manager, a change--control manager, and a life--cycle manager (a program that tells users whether information in the PDM is preliminary or whether it is suitable for production). The view manager lets users generate alternate views of the product's bill of material, such as an as--designed or as--manufactured view. In PTC's vision, ProductCenter will be the enterprise glue that binds together all product information databases in a company. According to Heppelmann, companies implementing ProductCenter may choose to maintain workgroup PDMs such as Pro/Intralink to handle day--to--day information management in engineering. (The ProductCenter software can manage databases directly and does not require the use of other PDMs.) PTC's idea is to tie CAD--specific data management programs to a program such as ProductCenter that can manage data from disparate systems. Eventually, PTC hopes to use NetFactor's capabilities to link into manufacturing resource--planning systems. The company would like to make the product structure information in Pro/Engineer available to MRP systems for use in manufacturing bills of material. Administrative Benefits One big advantage of NetFactor is that it provides what Heppelmann calls "a no--maintenance client." This means that upgrades to client software automatically are delivered through Java applets each time the user connects to the server. NetFactor administrators do not have to go from machine to machine installing upgrades to client software programs. **Another** advantage of NetFactor's Web architecture is that it employs existing communications software. Many companies already use the Internet or an intranet (an internal network based on Web technology) to communicate

with employees. NetFactor applications dovetail into the current network infrastructure and don't introduce **another** one. In theory, the same administrator who manages the system requirements for a company's Internet site also can manage those of the PDM system. Last but not least, NetFactor can control information on multiple database servers doing many simultaneous transactions. Most PDM systems are designed around a single database server, which means that the system slows down as more people try to use the data. Since NetFactor is based on the same technical architecture as the Web, it is designed to retrieve information from distributed computers. To users, however, the system can still look as if it is being run on one server. Caveats The Windchill approach to PDM may eventually revolutionize the industry, but the technology is just too new to say whether it will work or not. The fact that it was developed by the programmers who built Metaphase bodes well for its technical efficacy. Besides Heppelmann, at least a dozen former Metaphase programmers are with Windchill. They have tried, with NetFactor, to correct limitations of present--day PDMs, especially the prevalent use of a single data--model. Even by Internet standards, the NetFactor product is based on relatively immature software, including the Java programming language and object--relational databases that will take time to find acceptance in the market and to refine. Moreover, new technology is always somewhat unstable. For example, a recent sales slide at Oracle was blamed on the fact that customers were taking a wait--and--see attitude with Oracle 8. Apparently, many early adopters of previous versions of Oracle were burned when the database did not operate as expected. Anyone who has used the Web knows that servers and communication lines often become overloaded. We accept such delays when surfing for campsite locations or the latest edition of Playboy magazine. But engineers and manufacturing workers might not be so tolerant of sluggish performance when searching for data critical to keeping production going. Fortunately, with time, Web technologists will develop better tools for capacity planning to prevent servers and systems from slowing down. But, based on the struggle that even sophisticated firms such as Yahoo, Alta Vista, and DEC are having with this issue, that technology may take a few more years to develop. In addition, building a customized PDM application with NetFactor may require special expertise in object--oriented programming that is hard to find. Moreover, interfacing between ProductCenter and traditional PDM or CAD applications that cannot communicate via URLs may require using a complicated API to build a program to access the data. The success of NetFactor and ProductCenter will also depend on how it is marketed and sold by PTC. Right now, ProductCenter is being positioned as a so--called enterprise--wide PDM that will interface with and link workgroup PDMs such as Optegra and Intralink. Customers may be wary of purchasing two **different** PDM programs, however, either because of the cost or because of the difficulty in implementing two systems. Also, NetFactor **originally** was viewed as a backbone architecture that could be sold across the industry, much like an operating system or solid--modeling kernel. It is unclear whether PTC will be willing to sell this advanced technology to potential competitors. More Info ProductCenter is to be officially introduced at the CIMdata conference in April, with the **first** customer shipments going out in late June. The NetFactor technology has been in beta test with long--standing Computervision customers since November. The pool of beta testers includes research centers at Lockheed--Martin and ABB, as well as the IT departments at Peugeot and Airbus, which are considering the system for active projects. All beta tests today are being done with Computervision customers. PTC plans to test the product with Pro/Engineer customers in the near future. Contact: James Heppelmann, vice president Windchill Division, Parametric Technology Corporation, 6 Pinetree, Suite 300, Arden Hills, Minnesota 55112 Telephone: (612) 766--0117 ext. 313 FAX: (612) 766--0313 e--mail: jeh@windchill.com Web site: <http://www.ptc.com>.

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PUBLISHER NAME: CAD/CAM Publishing, Inc.

INDUSTRY NAMES: ARCH (Architecture and Design); BUSN (Any type of business); CMPT (Computers and Office Automation)

.(USE FORMAT 7 FOR FULLTEXT)

TEXT:

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28/5,K/10 (Item 3 from file: 636)  
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01412684 Supplier Number: 41838357 (THIS IS THE FULLTEXT)  
SMARTSTAR OFFERS REENGINEERING SERVICES

Feb, 1991

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 780

TEXT:

The biggest problem facing large MIS organizations today is the ongoing need to maintain existing software applications. In many cases, as much as 70 percent of software development budgets are spent for this purpose (Sentry Market Research, 1990). With so much money tied up in maintenance, very little remains for tackling the backlog of new applications waiting to be developed. Where do these tremendous maintenance expenses come from?

These applications, comprising thousands of lines of code, have been modified and rewritten many times to accommodate changing business needs. Yet the initial applications, decades old in some cases, have never been overhauled to take advantage of recent advances in software technology. This is particularly the case with certain parts of those applications: the user interfaces, report writing structures, and file maintenance components. SmartStar Corporation has a proven solution to this growing maintenance problem, a way to reengineer these cumbersome, maintenance-intensive applications to the following:

eliminate code (and the maintenance of such code)

- increase performance
- modernize functionality
- increase flexibility

As a case in point, consider the dramatic productivity gains achieved at one prominent SmartStar site, GE Plastics. Using SmartStar, GE Plastics was able to rewrite a lot tracking system in a period of only three weeks, reducing 7,000 lines of FORTRAN code to less than 700 lines. And the resulting system provides the same functionality. How is this possible? The third generation languages, such as COBOL and FORTRAN, while still quite useful have become dated in certain key areas. COBOL was created in 1959 for use on vacuum tube computers. on-line processing didn't exist, and there was one file structure to choose from: sequential files. So it's no surprise to find that the areas of COBOL which most need enhancement are the user interface, where the system must interact with the user in an on-line fashion, and in the creation of complex **data** management **structures** (SQL didn't exist when COBOL was developed). For all its strengths, COBOL remains clumsy in these areas. It is precisely these areas where the technology has **moved** ahead in leaps and bounds. SmartStar can quickly enhance the user interface and database access portions of an application, replacing them with code-free, forms-based modules. On the front-end, all data entry, querying and reporting will be handled through SmartStar forms, defined with a simple text-editor-style utility. These forms are created with little or no coding, and thus require minimal ongoing maintenance. SmartStar can reengineer the backend portion of an application to enable database-independent access to data, or portability over database types. Upon completion of the development effort, the application will be separated from the database. This means that the application can be run with its **original** database, or it can be run against a **different** database management system, simply by setting an external software switch at run time. Database independence translates to maximum flexibility for the **organization**. Should a **different** database management system become attractive at a future date, the same application can be used with the new database, often with little or no code modification. And separating the database from the application means that there is only one point of attention for database maintenance, rather than multiple points. Most significant to these reengineering efforts is that the core of an application, the processing engine, can often remain intact. In GE Plastic's case, it was the user interface portion of the lot tracking system which was dragging down the application and constantly requiring maintenance. The majority of the 7,000 lines of code were devoted to this piece. Once the user interface was rewritten and "modernized" with SmartStar, only a few hundred lines of FORTRAN code remained. There was no need to rewrite these; FORTRAN is great for number crunching, why try and improve it with a 4GL? SmartStar's product philosophy has never been to replace these 3GL languages, but to augment and enhance them. SmartStar can

reengineer these 3GL-based applications while preserving much of the value that still exists in them. It is only those areas of an application which are outdated and maintenance-intensive that should be replaced with new technology. The SmartStar reengineering methodology embraces the best of rapid prototyping technology for user involvement prior to detail design, and structured methodology based upon the ANSI/X3/ISQL 3-schema architecture, and its implementation through logical data design. The end result is applications that are reengineered in minimal time and which require minimal long term maintenance. Because of SmartStar's open architecture and adherence to industry standards, these old applications emerge from a rigid, proprietary world into an open, standards-based environment; one which is architecturally sound and of lasting value. For more information, call (805) 685-8000.

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PUBLISHER NAME: Worldwide Videotex

INDUSTRY NAMES: BUSN (Any type of business); CMPT (Computers and Office Automation)

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03951403 (USE FORMAT 7 OR 9 FOR FULLTEXT)

A landmark book on landmark data

Zelditch, Miriam

Bioscience (GBSC), v48 n10, p855-858, p.3

Oct 1998

ISSN: 0006-3568 JOURNAL CODE: GBSC

DOCUMENT TYPE: Book Review-Mixed

LANGUAGE: English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1052

ABSTRACT: Zelditch reviews "Morphometric Tools for Landmark Data: Geometry and Biology" by Fred L. Bookstein.

Copyright American Institute of Biological Sciences 1998

DESCRIPTORS: Nonfiction; Landmarks; Data collection; Geometry; Biology

TEXT:

... numbers seem to come from nowhere. For all I can tell, the numbers could even be typos. Another source of irritation is Bookstein's disparaging comments about systematic biology, especially in light of his seriously outdated...might better reflect Bookstein's current views. His revised views on important matters, such as the Procrustes distance metric, should have been indicated somewhere in the text.

Despite its unappealing prose, its sometimes unconvincing biological explanations...

28/5,K/12 (Item 2 from file: 484)  
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03867787 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Nonparametric two-group classification: Concepts and a SAS-based software  
package  
Silva, A Pedro Duarte; Stam, Antonie  
American Statistician (AST), v52 n2, p185-197, p.13  
May 1998  
ISSN: 0003-1305 JOURNAL CODE: AST  
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LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 6171

ABSTRACT: This article introduces BestClass, a set of SAS macros, available in the mainframe and workstation environment, designed for solving two-group classification problems using a class of recently developed nonparametric classification methods. The criteria used to estimate the classification function are based on either minimizing a function of the absolute deviations from the surface which separates the groups, or directly minimizing a function of the number of misclassified entities in the training sample.

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DESCRIPTORS: Statistics; Statistical analysis; Software packages

SPECIAL FEATURES: References Table Graph

TEXT:

... in the nearest neighbor methods, based on the full and diagonal pooled sample covariance matrix, respectively. Two different types of kernel functions were used in the kernel method, one based on multivariate normality, the other on an Epanechnikov kernel function (Epanechnikov 1969). For each kernel function, we created four different kernels by combining pooled versus ...smoothing parameters were determined by minimizing a leave-one-out estimate of the error rate in the first training sample (Lachenbruch and Mickey 1968). The SAS program was used for the kernel analysis. We note...

28/5,K/15 (Item 1 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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04714311 Supplier Number: 46940837 (USE FORMAT 7 FOR FULLTEXT)  
Java disk's a real pick-me-up for programmers  
PC Week, p102  
Dec 2, 1996  
ISSN: 0740-1604  
Language: English Record Type: Fulltext  
Document Type: Magazine/Journal; Tabloid; General Trade  
Word Count: 529  
PUBLISHER NAME: Ziff-Davis Publishing Company  
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PRODUCT NAMES: \*7372470 (Educational & Training Software)  
INDUSTRY NAMES: BUSN (Any type of business); CMPT (Computers and Office Automation)  
NAICS CODES: 51121 (Software Publishers)  
SPECIAL FEATURES: COMPANY

... with sound track that often pass for a multimedia product. MindQ combines audio narration, dynamic highlighting of source code listings to trace the flow of a program and animated movement of data values between on-screen representations of different data structures . This illuminates such complex topics as potential interference between

concurrent threads in the absence of method synchronization...

28/5, K/16 (Item 1 from file: 141)

DIALOG(R) File 141: Readers Guide

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03816140 H.W. WILSON RECORD NUMBER: BRGA98066140 (USE FORMAT 7 FOR FULLTEXT)

**Morphometric tools for landmark data (book review).**

Bookstein, Fred L., 1947-

Zelditch, Miriam, reviewer

BioScience (BioScience) v. 48 no10 (Oct. '98) p. 855+

DOCUMENT TYPE: Book Review Reviews

ISBN OF BOOK REVIEWED: 0521585988 (pa) :Cambridge University Press,

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RECORD TYPE: Fulltext RECORD STATUS: Corrected or revised record

WORD COUNT: 1124

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... numbers seem to come from nowhere. For all I can tell, the numbers could even be typos. **Another source** of irritation is Bookstein's disparaging comments about systematic biology, especially in light of his seriously outdated...might better reflect Bookstein's current views. His revised views on important matters, such as the Procrustes **distance metric**, should have been indicated somewhere in the text.

Despite its unappealing prose, its sometimes unconvincing biological explanations...